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# The Bean Bag

A newsletter to promote communication among research scientists concerned with the systematics of the Leguminosae/Fabaceae

Number 49

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## From the Editor

Barbara Mackinder

*The Bean Bag* is designed to promote communication among research scientists concerned with legume systematics. To achieve this goal *The Bean Bag* is issued annually. As of this volume, *The Bean Bag* will be issued in February each year. The change of month (from November) will allow for a more appropriate timing of certain regular announcements (e.g. The Rupert Barneby Award) and will avoid postal difficulties commonly associated with the Christmas period. *The Bean Bag* features six columns: From the Editor, News (meetings, major events, announcements, etc.), Latin American Legume Report, Nodulation and Nitrogen Fixation (new nodulation records), Gleanings, and Recent Legume Literature. Data in the Gleanings column are derived from questionnaire sheets which Readers complete and return.

The Recent Legume Literature column contains published research papers of specific interest to *Bean Bag* Readers and is derived from Readers contributions in conjunction with references from The Kew Record of Taxonomic Literature. Recent is defined as up to 18 months old. Specific interest to *Bean Bag* Readers is defined as research papers of interest to a worldwide group of legume systematic botanists.

*Bean Bag* Readers are encouraged to send notices, observations, etc. In particular in this issue, information is solicited concerning any aspect of nodulation (see the contribution from Janet Sprent under News). Also included is an inventory of legume taxa as yet unsampled for molecular phylogenetic studies (see the contribution from Gwilym Lewis and Brian Schrire under News). Furthermore a list of legume genera whose response to rhizobia is unknown is included with the intention of encouraging their exploration (see the contribution from Harold Corby and Joe Kirkbride under Nodulation and Nitrogen Fixation).

We encourage readers to accept delivery of *The Bean Bag* via e-mail to reduce our ever increasing distribution costs thus ensuring the continuation of *The Bean Bag*. If you are able to accept your copies by e-mail, please send a message to the editor (email: [b.mackinder@rbgkew.org.uk](mailto:b.mackinder@rbgkew.org.uk)). Will new readers please provide their title, first and last names, full postal address and area(s) of interest.

Electronic copies of the current and past issues of *Bean Bag* and the Current Readers Directory can be viewed on the World Wide Web server of the Royal Botanic Gardens, Kew, UK at <http://www.rbgkew.org.uk/herbarium/legumes/beanbag.html>

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## NEWS

### The Fourth International Legume Conference, July 2001, Canberra, Australia

Joe Miller

The Fourth International Legume Conference, "Legumes Down Under", was held in Canberra during the first week of July 2001. There were over 100 participants at the conference with people from all over the world. The organisers were very pleased that there were very few logistical or technical problems and that the weather was cooperative. It was very useful time for legume workers to get together and to continue the work on legume phylogeny and other topics.

The conference had a strong focus on Systematics with other sessions on Phytochemistry, Utilization, Electronic and Web Based Tools, Symbiosis and Rehabilitation, Developmental and Structural Morphology and Legume/Animal Interactions.

Currently manuscripts, taken from papers given at the conference, are being reviewed for two publications of the Advances in Legume Systematics series. One volume (Advances X) will be published at The Royal Botanic Gardens, Kew and focuses on higher-level systematic studies. The second volume (Advances XI) will be published by CSIRO Publishing, will also be labeled as a special issue of Australian Systematic Botany and focuses on *Acacia* systematics and utilization.

Over a dozen participants also attended a post-conference symposium in Western Australia entitled "The Conservation and Utilization Potential of Dryland Acacias." A volume of papers from this symposium is also being prepared.

Several collaborative projects were discussed involving the Bean Tree Workshop and ILDIS. It is hoped that the conference has facilitated and reinforced cooperation and transfer of knowledge among legume workers and that this work will continue.

On behalf of the conference organizing committee Joe Miller would like to thank all the participants for visiting Canberra. We would also like to thank our many sponsors of the conference. We look forward to the next International Legume Conference and associated legume symposia at various meetings to continue our important work in legume research.

Organizing Committee: Joe Miller, Mike Crisp, Jim Grimes and David Morrison.

### Nodulation in Legumes - not the end of the story!

Janet I. Sprent

#### Book Announcement

Janet Sprent's new book summarises the processes leading to nodulation in legumes and also the current list of those species known to nodulate. The last entry was made in March 2001, but there is already new information available. Two new genera of bacteria capable of nodulating legumes have been reported as well as another slant on the infection process. Much of the new information emerging is from the tropics and this is likely to be only the tip of the iceberg!

Please let Janet ([jisprent@aol.com](mailto:jisprent@aol.com)) know of any new material that you have, on any aspect of nodulation, so that it can be incorporated in an up-date of the book which is already planned.

Nodulation in Legumes by Janet I. Sprent (xii + 146pp. Soft cover, ISBN 1 84246 013 7) is published by The Royal Botanic Gardens, Kew, price £27.00 / €43.20 and can be purchased from <http://www.Kewbooks.com> and in the near future (expected April 2002) directly from RBG, Kew at <http://www.kew.org/publications>.

#### Nitrogen Fixation Conference

If you are working on nodulation in a developing country and would like to be considered for funding to attend the next European Conference on Nitrogen Fixation, to be held in Norwich, England Sept 6-10 2002, please email [jisprent@aol.com](mailto:jisprent@aol.com) with an indication of what you are doing and a brief CV.

A limited amount of funding has been obtained from the EU and it will be distributed competitively with a preference for young (post MSc or PhD) researchers.



# The Leguminosae of Madagascar

Barbara Mackinder

The Leguminosae of Madagascar, edited by David J. Du Puy is the product of a project that originally aimed to produce a checklist of the Leguminosae of Madagascar. However it quickly became clear that the knowledge of the family in Madagascar was very incomplete and that a full flora account and fieldwork would be needed. Jean-Noel Labat, Jean Bosser and Jean-François Villiers from Paris collaborated on the book, as did Raymond Rabevohitra from Madagascar. Sadly J.-F. Villiers died before completion of the book. The book deals with 573 native species of which 80% are endemic to Madagascar. Six genera and 129 species were described as new to science during the project. The book is generously illustrated with line drawings and colour photographs. The Leguminosae of Madagascar, (720 pp. Hardcover, ISBN 1 900347 70 9) is published by The Royal Botanic Gardens, Kew. It can be purchased from <http://www.Kewbooks.com> and in the near future (expected April 2002) directly from RBG, Kew at <http://www.kew.org/publications> for £65.00 / €104.00 plus post/packaging.

## Molecular sampling needs in Leguminosae

Gwilym P. Lewis and Brian D. Schrire

At a recent UK Legume group meeting, it was agreed that we should compile a list of genera that have not yet been sampled molecularly. In consultation with Marty Wojciechowski, Matt Lavin, Toby Pennington, Melissa Luckow and Pat Herendeen, we present below a list of critical genera (Table 1) for which no known molecular data is currently available.

If you are in a position to collect silica-dried leaf material of any of these genera (i.e. you have in place collecting permits for those areas where these genera are known to grow), please let Gwil Lewis or Brian Schrire at RBG, Kew know and they can put you in touch with the relevant specialist seeking to access this material. Alternatively, if you have already extracted DNA from any of these genera kindly also let us know so we can keep the list below updated. The overall aim of targeting these critical genera is to have available at least one species of each of the 720 genera of legumes, thus moving closer towards a full molecular legume phylogeny. We envisage this as Phase 1 of a legume gap-filling exercise, to be followed by a more detailed list including those paraphyletic or large genera where more detailed sampling is necessary. We present such a list for the Caesalpinioideae and tribe Mimoseae in Table 2 below.

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Table 1. Genera for which no known molecular data is currently available

Genus	Tribe	Sp #	Distribution
CAESALPINIOIDEAE			
Arcoa	Caesalpineae	1	Haiti (Santo Domingo)
Balsamocarpon	Caesalpineae.	1	Chile
Chidlowia	Caesalpineae.	1	Sierra Leone, Ghana, Ivory Coast, Liberia
Moullava (=Wagatea)	Caesalpineae.	1	India
Neoapaloxylon	Caesalpineae.	1	Madagascar
Orphanodendron	Caesalpineae.	1	Colombia
Stenodrepanum	Caesalpineae.	1	Argentina
Stachyothyrsus	Caesalpineae.	3	Cameroon, Sierra Leone, Ivory Coast, Liberia, Zaire, Equatorial Guinea
Sympetalandra	Caesalpineae.	5	Indonesia & Malaysia (Sabah, Sarawak, Kalimantan, Malay Peninsula, Sumatra)
Adenolobus	Cercidieae	3	Namibia, S. Africa, Botswana
Gigasiphon	Cercidieae	3	Madagascar, Tanzania, Kenya, Angola, Gabon, Zaire
Griffonia	Cercidieae	4	Cameroon, Gabon, Nigeria, Zaire
Androcalymma	Cassieae	1	Brazil
Apuleia	Cassieae	1	Brazil, Colombia, Peru, Venezuela, Argentina
Eligmocarpus	Cassieae	1	Madagascar
Kalappia	Cassieae	1	Indonesia (Sulawesi) near Milili

Genus	Tribe	Sp #	Distribution
<i>Mendoravia</i>	Cassieae	1	Madagascar (southeast)
<i>Brandzeia</i> (= <i>Bathiaea</i> )	Detarieae s.l	1	Madagascar (southeast)
<i>Brachycylis</i>	Detarieae s.l	1	Colombia
<i>Brenaniodendron</i>	Detarieae s.l	1	Mozambique
<i>Brodriguesia</i>	Detarieae s.l	1	Brazil (Bahia)
<i>Hardwickia</i>	Detarieae s.l	1	west India
<i>Heterostemon</i>	Detarieae s.l	7	Guyana, Brazil (Amazonas, Para), Surinam, Colombia, Venezuela
<i>Lebruniodendron</i>	Detarieae s.l	1	Cameroon, Zaire
<i>Leucostegane</i>	Detarieae s.l	2	Malaysia & Indonesia (Malay Peninsula, Sumatra, Sarawak)
<i>Michelsonia</i>	Detarieae s.l	1	Zaire
<i>Neoapaloxylon</i>	Detarieae s.l	3	Madagascar (west and south)
<i>Pseudomacrolobium</i>	Detarieae s.l	1	Zaire
<i>Paloveopsis</i>	Detarieae s.l	1	Guyana, Brazil (Amazonas)
<b>MIMOSOIDEAE</b>			
<i>Aubrevillea</i>	Mimoseae	2	Guineo-Congolian
<i>Indopiptadenia</i>	Mimoseae	1	India & Nepal
<i>Lemurodendron</i>	Mimoseae	1	Madagascar
<i>Mimozgyanthus</i>	Mimoseae	1	Argentina
<i>Prosopidastrum</i>	Mimoseae	2	Baja, California & Argentina
<i>Xerocladia</i>	Mimoseae	1	South Africa, Namibia
<i>Stryphnodendron</i>	Mimoseae	c.30	Central America, northern South America and Brazil
<i>Abarema</i>	Ingeae	44	Mainly New World tropics, 1 sp. extending to Bahamas, 2 to SE Brazil
<i>Archidendron</i>	Ingeae	94	Sri Lanka, continental SE Asia, Malesia, NE Australia, 1 sp extending to Micronesia, 2 to Solomon Islands
<i>Archidendropsis</i>	Ingeae	14	New Guinea, Bismark Archipelago, Australia (Queensland), New Caledonia, Solomon Islands
<i>Blanchetiodendron</i>	Ingeae	1	E Brazil
<i>Cathormion</i>	Ingeae	1	SE Asia & Australia
<i>Cojoba</i>	Ingeae	12	West Indies, NW Andean and tras-Andean South America, SE Mexico & Central America
<i>Ebenopsis</i>	Ingeae	3	Mexico & S Texas
<i>Falcataria</i>	Ingeae	3	Moluccas, New Guinea, Solomon Islands, Australia (Queensland)
<i>Guinetia</i>	Ingeae	1	Mexico
<i>Havardia</i>	Ingeae	5	Mexico, Texas & C America
<i>Hesperalbizia</i>	Ingeae	1	SW Mexico
<i>Hydrochorea</i>	Ingeae	3-4	Orinoco & Amazon basins, Guianas, Brazil
<i>Leucochloron</i>	Ingeae	4	Brazil
<i>Macrosamanea</i>	Ingeae	11	South America, mostly Amazonian
<i>Painteria</i>	Ingeae	3	Mexico
<i>Serianthes</i>	Ingeae	c.18	Thailand, Malesia, Micronesia, Melanesia & W. Polynesia
<i>Sphinga</i>	Ingeae	3	Mexico, Cuba, Guatemala, & NW South America
<i>Viguieranthus</i>	Ingeae	23	Asia & Madagascar
<i>Wallaceodendron</i>	Ingeae	1	N Celebes & Philippines
<i>Zygia</i>	Ingeae	c.60	Lowland tropical America and Greater Antilles to South America, most diverse in Central America, Columbia, Guianas, & NW Amazonia
<b>PAPILIONOIDEAE</b>			<b>Genera arranged systematically within tribes</b>
<i>Candolleodendron</i>	Swartzieae	1	S America (French Guiana, N and NE Brazil)
<i>Haplormosia</i>	Sophoreae	1	W and C Africa (Sierra Leone to Gabon)
<i>Uleanthus</i>	Sophoreae	1	S America (Amazonian Brazil)
<i>Pamireia</i>	Sophoreae	2	S America (Colombia and Brazil)

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See e-mail of May 29



Genus	Tribe	Sp #	Distribution
<i>Diplotropis</i>	Sophoreae	12	S America, (Colombia and Venezuela to Peru and Bolivia)
<i>Spirotropis</i> <i>Helen I.</i>	Sophoreae	2-3	Northern S America (Venezuela, Guyana, Surinam & French Guiana)
<i>Monopteryx</i>	Sophoreae	3-4	Northern S America (Colombia, Venezuela, French Guiana and Amazonian Brazil)
<i>Petaladenium</i>	Sophoreae	1	Brazil (Rio Negro river)
<i>Sakoanala</i>	Sophoreae	2	Madagascar
<i>Neoharmsia</i> <i>Helen I.</i>	Sophoreae	2	N and NW Madagascar
<i>Ammothamnus</i>	Sophoreae	3	Central Asia (Kazakstan, Tadzhikistan, Uzbekistan and Turkmenistan)
<i>Amphimas</i>	Sophoreae	3-4	C and W Africa
<i>Baphiastrum</i>	Sophoreae	1	Tropical central Africa
<i>Ammopiptanthus</i>	Thermop-sidae	1-2	Mongolia. China, Russia
<i>Xiphotheca</i>	Podalyriae	9	Africa (endemic to the Cape region of South Africa)
<i>Amphithalea</i>	Podalyriae	42	Africa (endemic to the Cape region of South Africa)
<i>Pearsonia</i>	Crotalarieae	13	Africa and Madagascar
<i>Rothia</i>	Crotalarieae	2	Africa and Asia to Australia
<i>Robynsiophyton</i>	Crotalarieae	1	SC Africa (Angola, Zambia and Zaire)
<i>Spartidium</i>	Crotalarieae	1	N Africa (Morocco to Libya)
<i>Bolusia</i>	Crotalarieae	5	SC and southern Africa
<i>Wiborgia</i>	Crotalarieae	10	Africa (endemic to the Cape region of South Africa)
<i>Polhillia</i>	Genisteae	7	W and SW parts of the Cape region of South Africa
<i>Sellocharis</i>	Genisteae	1	S America (SE Brazil)
<i>Anarthrophyllum</i>	Genisteae	15	S America (Andes in Argentina and Chile)
<i>Hesperolaburnum</i>	Genisteae	1	Morocco (Anti Atlas Mts.)
? <i>Cytisophyllum</i>	Genisteae	1	Mediterranean area of S Europe from Spain to Italy
<i>Cytisopsis</i>	Loteae	1-2	Mediterranean (E Mediterranean and N Africa)
<i>Antopetitia</i>	Loteae	1	Tropical Africa (mountains)
<i>Oreophysa</i>	Galegeae	1	N. Iran, mountains
<i>Eremosparton</i>	Galegeae	3	SE Russia and Caucasus to C Asia and NW China
<i>Calophaca</i>	Galegeae	5	Central Asia, Ukraine to Caucasus
<i>Chesneya</i>	Galegeae	c.30	Temperate SW Asia to Sino-Himalayan region, most diverse in C Asia to Mongolia
<i>Neodielsia</i> ( <i>Astragalus</i> segr.)	Galegeae	?	Turkestan
<i>Smirnowia</i>	Galegeae	1	Afganistan, Iran, Turkestan
<i>Gueldenstaedtia</i>	Galegeae	c. 10	Sino-Himalayan region to Mongolia and Siberia
<i>Stracheya</i>	Hedysareae	1	High Himalayas (Kashmir, Tibet, etc.)
<i>Taverniera</i>	Hedysareae	10	W India to Middle East, Horn of Africa
<i>Sartoria</i>	Hedysareae	1	S Turkey
<i>Ebenus</i>	Hedysareae	20	Mediterranean
<i>Eversmannia</i>	Hedysareae	1	Iran to W China
<i>Vavilova</i>	Fabeae	1	Turkey, Middle East
<i>Parochetus</i>	Trifolieae	2	Mtns. of tropical East Africa and Himalayas (no sampling from natural collections)
<i>Endosamara</i>	Millettieae	1	Indian subcontinent, Indo-China and Malasia
<i>Sarcodum</i>	Millettieae	c.3	S. China, Indo-China, Malesia, Papuasias
<i>Burkilliodendron</i>	Millettieae	1	Malaya (Perak)
<i>Craspedolobium</i>	Millettieae	1	S and SW China, Indo-China (Burma, Thailand, Laos)
<i>Kunstleria</i>	Millettieae	8	Malesia and Indian subcontinent (1 sp.)
<i>Schefflerodendron</i>	Millettieae	4	West-Central Tropical Africa with 1 sp. to East Africa
<i>Disynstemon</i>	Millettieae	1	Madagascar (South West)
<i>Pyranthus</i>	Millettieae	6	W, S and C Madagascar
<i>Sylvichadsia</i>	Millettieae	4	E and N Madagascar



Genus	Tribe	Sp #	Distribution
<i>Paratephrosia</i>	Millettieae	1	Australia (W. Australia, N. Territory, S. Australia, Queensland)
<i>Ptycholobium</i>	Millettieae	3	W to NE Tropical Africa and Arabia; southern Africa
<i>Requienia</i>	Millettieae	3	W to NE Tropical Africa (Sahelian zone); southern Africa
<i>Platysepalum</i>	Millettieae	7-8	Tropical, mostly West Africa
<i>Antheroporum</i>	Millettieae	c.3	SW China and Indo-China (Burma, Thailand and Vietnam)
<i>?Imbralyx</i>	Millettieae	c.4	S China to Sumatra (segregate of <i>Fordia</i> )
<i>Behaimia</i>	Millettieae	1	Cuba
<i>Bergeronia</i>	Millettieae	1	Brazil, Bolivia, Paraguay and Argentina
<i>Dahlstedtia</i>	Millettieae	2	Brazil, Argentina
<i>Margaritolobium</i>	Millettieae	1	Venezuela
<i>Meizotropis</i>	Phaseoleae	2	tropical Asia (subcontinental India and W Indo-China)
<i>Cochlianthus</i>	Phaseoleae	2	W China (Yunnan, Sichuan) and Himalayas (Nepal)
<i>Cruddasia</i>	Phaseoleae	c.2	NE Indian subcontinent; Indo-China (Burma, Thailand)
<i>Pseudoeriosema</i>	Phaseoleae	c.4	tropical Africa
<i>Barbieria</i>	Phaseoleae	1	Neotropics, from S Mexico, C America, Caribbean and W tropical S America
<i>Clitoriopsis</i>	Phaseoleae	1	tropical Africa (Congo [Kinshasa] and Sudan)
<i>Macropsychanthus</i>	Phaseoleae	c.2	Papuasias, Micronesia (possibly Philippines)
<i>?Luzonia</i>	Phaseoleae	1	Philippines (Luzon and Leyte)
<i>Herpyza</i>	Phaseoleae	1	Cuba (Allen & Allen, 1981 also note its occurrence in Puerto Rico)
<i>Diphyllarium</i>	Phaseoleae	1	Indo-China (Laos & Vietnam)
<i>Sinodolichos</i>	Phaseoleae	2	SE Asia (NE Indian subcontinent, SW China, Indo-China)
<i>Nogra</i>	Phaseoleae	c.3	Indian subcontinent, S China, Indo-China (all 3 spp. should be sampled)
<i>Dysolobium</i>	Phaseoleae	4	SE Asia (E Indian subcontinent, Indo-China, SW China, Malesia)
<i>Alistilis</i>	Phaseoleae	3	Southern Africa (1 sp.), Madagascar (2 spp.)
<i>Nesphostylis</i>	Phaseoleae	4	tropical and subtropical Africa (2 spp.); SE Asia (Indian subcontinent, Indo-China [Burma]; 2 spp.)
<i>Decorsea</i>	Phaseoleae	6	Southern tropical and subtropical Africa (3 spp.) and Madagascar (3 spp.)
<i>Spathionema</i>	Phaseoleae	1	E tropical Africa
<i>Vatovaea</i>	Phaseoleae	1	NE tropical Africa
<i>Dunbaria</i>	Phaseoleae	20	SE Asia (Indian subcontinent, Indo-China, China, E Asia, Malesia, Papuasias); N Australia
<i>Bolusafr</i>	Phaseoleae	1	South Africa (W Cape)
<i>Flemingia</i>	Phaseoleae	30-35	SE Asia (Indian subcontinent, Indo-China, China, Malesia, Papuasias) to Australia (ca 28-33 spp.); Africa 1 sp. and <i>F. grahamiana</i> Wight and Arn. widespread in Africa and Asia
<i>Paracalyx</i>	Phaseoleae	6	NE tropical Africa (Ethiopia, Somalia) and Socotra (5 spp.); Indian subcontinent, Indo-China (1 sp.)
<i>Carissoa</i>	Phaseoleae	1	SW tropical Africa (Angola)
<i>Chrysocias</i>	Phaseoleae	3- 4	South Africa (S parts of W Cape)
<i>Orbexilum</i>	Psoraleeae	8	E USA from Virginia to Florida, westwards through Kansas, Oklahoma and Texas; Mexico (to Chiapas)
<i>Hoita</i>	Psoraleeae	3	W USA (California) to NW Mexico (Baja California)
<i>Pedimelum</i>	Psoraleeae	21	SC Canada, USA (Great Plains and Great Basin) to C Mexico

Table 2: Genera for which additional species are needed

CAESALPINIOIDEAE			
Genus	Tribe	Sp #	Distribution
<i>Caesalpinia s.l.</i>	Caesal.	c.100	pantropical
<i>Mezoneuron</i>	Caesal.	c.30	Malaysia & Indonesia (Malay Peninsula, Java, Sumatra, Sarawak, Kalimantan, Celebes), Thailand, trop Africa, Hawaii
<i>Tachigali s.l.</i>	Caesal.	60	C & S. America
<i>Dimorphandra</i>	Caesal.	25	Guyana, Surinam, Brazil (Amazonas, Para, Rio de Janeiro), Venezuela, Colombia
<i>Gleditsia</i>	Caesal.	14	Indonesia (Celebes)
<i>Bauhinia</i>	Cercid.	c.250	pantropical
<i>Cassia</i>	Cassieae	30	pantropical
<i>Dialium</i>	Cassieae	c.40	pantropical
<i>Labichea</i>	Cassieae	18	Australia (Queensland, W. Austr.)
<i>Martiodendron</i>	Cassieae	4	Brazil (Para, Amazonas, Bahia, Maranhao), Guyana
<i>Senna</i>	Cassieae	240	pantropical
<i>Brachystegia</i>	Detarieae s.l	c.30	west & east Africa
<i>Brownea</i>	Detarieae s.l	c.30	Guyana, French Guiana, Venezuela, Ecuador, Colombia, Peru
<i>Crudia</i>	Detarieae s.l	c.55	Malaysia & Indonesia (Sumatra, Java, Sabah, Kalimantan, Sarawak, Malay Peninsula), Guyana, Brazil (Para, Amazonas, Rondonia), Fr. Guiana, Surinam, Colombia, Zaire
<i>Daniellia</i>	Detarieae s.l	9	Tanzania, west Africa including Cameroon, Gabon, Zaire
<i>Dicymbe</i>	Detarieae s.l	15	Guyana, Brazil, Peru, Venezuela
<i>Elizabetha</i>	Detarieae s.l	10	Guyana, Surinam, French Guiana, Brazil
<i>Guibourtia</i>	Detarieae s.l	c.17	Brazil, Paraguay, Caribbean, Sierra Leone, Gabon, Congo, Zaire, Zambia, Mozambique, S. Africa
<i>Macrobium</i>	Detarieae s.l	c.100	Guyana, Fr. Guiana, Surinam, Ecuador, Brazil, Peru, Venezuela, Colombia
<i>Maniltoa</i>	Detarieae s.l	c.25	Malaysia & Indonesia (Malay Peninsula, Celebes), New Guinea, , Australia
<i>Paloue</i>	Detarieae s.l	4	Guyana, French Guiana, Surinam
<i>Peltogyne</i>	Detarieae s.l	23	Guyana, Fr. Guiana, Surinam, Brazil, Peru, Mexico, W. Indies
<i>Sindora</i>	Detarieae s.l	18-20	Malaysia & Indonesia (Malay Peninsula, Sabah, Kalimantan, Sarawak, Sumatra, Celebes, Java
<i>Zenkerella</i>	Detarieae s.l	5	Tanzania, Cameroon, Gabon
MIMOSOIDEAE			
Genus	Tribe	Sp #	Distribution
<i>Piptadenia</i>	Mimoseae	c.21	Mexico, throughout Central and South America as far south as Argentina and peru
<i>Prosopis</i> (especially <i>P. africana</i> )	Mimoseae	c.44	SW North America, South America, SW Asia & Africa
<i>Mimosa</i> (especially sect. <i>Mimadenia</i> )	Mimoseae	c.480	mostly New World tropics, a few in tropical Africa, S Asia and Madagascar



## The Rupert Barneby Award

James L. Luteyn

The New York Botanical Garden is pleased to announce that Aaron Liston, currently at the Department of Botany & Plant Pathology, Oregon State University, is the recipient of the Rupert Barneby Award for the year 2002. Dr. Liston will be studying the phylogenetic systematics of *Astragalus* and *Trifolium*.

The New York Botanical Garden now invites applications for the Rupert Barneby Award for the year 2003. The award of US\$ 1,000.00 is to assist researchers to visit The New York Botanical Garden to study the rich collection of Leguminosae. Anyone interested in applying for the award should submit their curriculum vitae, a detailed letter describing the project for which the award is sought, and the names of 2-3 referees. Travel to the NYBG should be planned for sometime in the year 2003. The application should be addressed to Dr. James L. Luteyn, Institute of Systematic Botany, The New York Botanical Garden, 200th Street and Kazimiroff Blvd., Bronx, NY 10458-5126 USA, and received no later than December 1, 2002. Announcement of the recipient will be made by December 15th.

Anyone interested in making a contribution to THE RUPERT BARNEBY FUND IN LEGUME SYSTEMATICS, which supports this award, may send their check, payable to The New York Botanical Garden, to Dr. Luteyn.

## Rupert Barneby, 1911–2000 (Obituary)

Gwilym P. Lewis

Rupert was born on October 6, 1911, in Monmouthshire, on the English-Welsh border. He went to harrow Public School from 1924–1929 and to Trinity College, Cambridge University from 1930–1932 where he gained a B. A. in History and Modern Languages.

One of Rupert's early enthusiasms in legumes when collecting in Spain and N. Africa prior to the Hitler war was the *Cytisus-Ulex-Stauracanthus* complex and it is evident that he entered the United States in 1937 with beans already a main focus of his botanical interest. He took up permanent residency in the United States in 1941.

His main research interests were xerophytic Floras, the taxonomy of the Leguminosae and Neotropical Menispermaceae. He described 1,160 species new to science in upwards of 140 publications, all of which are learned papers and many of which are monumental tomes. Of the 25 species named by other botanists in his honour, over a third are species of legume. Four genera honour him, and three of these are legumes, *Barnebydendron* Kirkbride, *Barnebyella* Podlech and *Rupertia* Grimes. Eight of his own legume publications (some coauthored): North American *Astragalus*, Daleae Images, The American Cassiinae, A monograph of *Mimosa*, A conspectus of *Erythrina* and three volumes on the New World Ingeae (including his last major work, *Calliandra*) describe in total 1,900 species.

Rupert's passing leaves an echoing gap in New York and in the world of botany.

Bean Bag readers' attention is drawn to "Ruperti Images: a portrait of Rupert Barneby" by Douglas Crase in *Brittonia* 53(1): 1–40 (2001).



Nodulation and Nitrogen Fixation  
(Legume Nodulation reports not in Allen and Allen (1981))

Joseph H. Kirkbride, Jr.

Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Abarema bigemina</i> (L.) Kosterm.	+	164
<i>Abarema cochleata</i> (Willd.) Barneby & J.W. Grimes var. <i>moniliformis</i> (Ducke) Barneby & J.W. Grimes	+	38
<i>Abarema cochlicarpos</i> (B.A. Gomes) Barneby & J.W. Grimes	+	50
<i>Abrus canescens</i> Baker	+	49
<i>Abrus cantoniensis</i> Hance	+	72
<i>Abrus mollis</i> Hance	+	72
<i>Abrus pulchellus</i> Wall. ex Thwaites subsp. <i>temuiflorus</i> (Benth.) Verdc.	+	42
<i>Acacia acradenia</i> F. Muell.	+	17
<i>Acacia amoena</i> H.L. Wendl.	+	138
<i>Acacia ancistrocarpa</i> Maiden & Blakely	+	17
<i>Acacia argyrodendron</i> Domin	+	20
<i>Acacia atramentaria</i> Benth.	+	124
<i>Acacia berlandieri</i> Benth.	+	69
<i>Acacia binervata</i> DC.	+	170
<i>Acacia bivenosa</i> DC.	+	45
<i>Acacia blakei</i> Pedley	+	138
<i>Acacia brassii</i> Pedley	+	36
<i>Acacia brevispica</i> Harms	+	20
<i>Acacia brumalis</i> Maslin	+	35
<i>Acacia burrowii</i> Maiden	+	138
<i>Acacia caesia</i> (L.) Willd.	+	150
<i>Acacia cambagei</i> R.T. Baker	+	138
<i>Acacia cangaiensis</i> Tindale & Kodela	+	100
<i>Acacia chrysotricha</i> Tindale	+	170
<i>Acacia cincinnat</i> F. Muell.	+	36
<i>Acacia citrinoviridis</i> Tindale & Maslin	+	150
<i>Acacia colei</i> Maslin & A.J. Thomson	+	144
<i>Acacia concinna</i> (Willd.) DC.	+	57
<i>Acacia concinna</i> (Willd.) DC.	-	76
<i>Acacia concurrens</i> Pedley	+	38
<i>Acacia coriacea</i> DC.	+	20
<i>Acacia cowleana</i> Tate	+	17
<i>Acacia cuthbertsonii</i> Luehm.	+	17
<i>Acacia cyperophylla</i> F. Muell. ex Benth.	+	20
<i>Acacia dangarensis</i> Tindale & Kodela	+	25
<i>Acacia dictyophleba</i> F. Muell.	+	17
<i>Acacia difficilis</i> Maiden	+	144
<i>Acacia dimidiata</i> Benth.	+	138
<i>Acacia dolichostachya</i> S.F. Blake	+	150
<i>Acacia drepanolobium</i> Harms ex Y. Sjostedt	+	13
<i>Acacia dudgeoni</i> Holland	+	74
<i>Acacia dunnii</i> (Maiden) Turrill	+	138
<i>Acacia elatior</i> Brenan	+	121
<i>Acacia elongata</i> Sieber ex DC.	+	138
<i>Acacia eremaea</i> C.R.P. Andrews	+	35
<i>Acacia erioloba</i> E. May.	+	64
<i>Acacia etbaica</i> Schweinf.	+	7

Ed. Note: Reference 150 is “Nodulation in Legumes” by Janet I. Sprent published by the Royal Botanic Gardens, Kew (2001).

Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Acacia falciformis</i> DC.	+	170
<i>Acacia ferruginea</i> DC.	+	31
<i>Acacia filicifolia</i> Cheel & M.B. Welch	+	138
<i>Acacia flavescens</i> Benth.	+	20
<i>Acacia fulva</i> Tindale	+	170
<i>Acacia gittinsii</i> Pedley	+	138
<i>Acacia glauca</i> Moench	+	72
<i>Acacia glaucocarpa</i> Maiden & Blakely	+	100
<i>Acacia gonocarpa</i> F. Muell.	+	21
<i>Acacia gourmaensis</i> A. Chev.	+	74
<i>Acacia gummifera</i> Willd.	+	94
<i>Acacia hemsleyi</i> Maiden	+	17
<i>Acacia hillianiana</i> Maiden	+	150
<i>Acacia hippuroides</i> Heward ex Benth.	+	150
<i>Acacia hockii</i> De Wild.	+	14
<i>Acacia holosericea</i> A. Cunn. ex G. Don	+	69
<i>Acacia holosericea</i> A. Cunn. ex G. Don var. <i>neurocarpa</i> (Hook.) Domin	+	144
<i>Acacia implexa</i> Benth.	+	138
<i>Acacia irrorata</i> Sieber ex Spreng.	+	170
<i>Acacia irrorata</i> Sieber ex Spreng. ssp. <i>irrorata</i>	+	170
<i>Acacia irrorata</i> Sieber ex Spreng. ssp. <i>velutinella</i> Tindale	+	170
<i>Acacia iteaphylla</i> F. Muell. ex Benth.	+	138
<i>Acacia ixiophylla</i> Benth.	+	35
<i>Acacia julifera</i> Benth.	+	36
<i>Acacia lachnophylla</i> F. Muell.	+	138
<i>Acacia laeta</i> R. Br. ex Benth.	+	74
<i>Acacia latescens</i> Benth.	+	104
<i>Acacia leiocalyx</i> (Domin) Pedley	+	138
<i>Acacia leucoclada</i> Tindale	+	21
<i>Acacia linarioides</i> Benth.	+	45
<i>Acacia litakunensis</i> Burch.	+	20
<i>Acacia longispicata</i> Benth.	+	144
<i>Acacia lysiphloia</i> F. Muell.	+	17
<i>Acacia maconochieana</i> Pedley	+	36
<i>Acacia melleodora</i> Pedley	+	17
<i>Acacia minuta</i> (M.E. Jones) R.M. Beauch.	+	6
<i>Acacia montigena</i> Brenan & Exell	+	150
<i>Acacia mountfordiae</i> Specht	+	138
<i>Acacia mutabilis</i> Maslin ssp. <i>mutabilis</i>	+	35
<i>Acacia mucronata</i> Willd. ex H.L. Wendl.	+	104
<i>Acacia mutabilis</i> Maslin ssp. <i>stipulifera</i> Maslin	+	35
<i>Acacia nanodealbata</i> J.H. Willis	+	170
<i>Acacia negrii</i> Pic. Serm.	+	7
<i>Acacia neurocarpa</i> Hook.	+	144
<i>Acacia nilotica</i> (L.) Willd. ex Delile ssp. <i>tomentosa</i> (Benth.) Brenan	+	45
<i>Acacia notabilis</i> F. Muell.	+	138
<i>Acacia oncinocarpa</i> Benth.	+	138
<i>Acacia oshanesii</i> F. Muell. & Maiden	+	63
<i>Acacia papyrocarpa</i> Benth.	+	138
<i>Acacia parvipinnula</i> Tindale	+	170
<i>Acacia patagiata</i> R.S. Cowan & Maslin	+	35
<i>Acacia pellita</i> O. Schwarz	+	105
<i>Acacia pendula</i> A. Cunn. ex G. Don	+	138
<i>Acacia pentagona</i> (Schumacher & Thonn.) Hook. f.	+	68
<i>Acacia planifrons</i> Wight & Arn.	+	31
<i>Acacia plectocarpa</i> A. Cunn.	+	36
<i>Acacia polyacantha</i> Willd. ssp. <i>polyacantha</i>	+	31
<i>Acacia polystachya</i> Benth.	+	36



Taxon	Status <sup>1</sup>	Souce <sup>2</sup>
<i>Acacia prasinata</i> Asfaw	+	7
<i>Acacia pyrifolia</i> DC.	+	138
<i>Acacia redolens</i> Maslin	+	35
<i>Acacia reficiens</i> Wawra	+	121
<i>Acacia rothii</i> F.M. Bailey	+	36
<i>Acacia rosumae</i> Oliv.	+	74
<i>Acacia sakalava</i> Drake	-	74
<i>Acacia schaffneri</i> (S. Watson) F.J. Herm.	+	150
<i>Acacia schottii</i> Torr.	+	150
<i>Acacia schweinfurthii</i> Brenan & Exell	-	68
<i>Acacia shirleyi</i> Maiden	+	20
<i>Acacia silvestris</i> Tindale	+	170
<i>Acacia simsii</i> Benth.	+	36
<i>Acacia sparsiflora</i> Maiden	+	20
<i>Acacia spectabilis</i> A. Cunn. ex Benth.	+	36
<i>Acacia stipuligera</i> F. Muell.	+	17
<i>Acacia suma</i> (Roxb.) Buch.-Ham. ex J. Voigt	+	31
<i>Acacia sutherlandii</i> (F. Muell.) F. Muell.	+	20
<i>Acacia teniana</i> Harms	+	72
<i>Acacia tenuissima</i> F. Muell.	+	17
<i>Acacia tephrina</i> Pedley	+	20
<i>Acacia thomsonii</i> Maslin & M.W. McDonald	+	17
<i>Acacia tortilis</i> (Forssk.) Hayne	+	69
<i>Acacia torulosa</i> Benth.	+	104
<i>Acacia trachycarpa</i> E. Pritz.	+	134
<i>Acacia trachyphloia</i> Tindale	+	21
<i>Acacia translucens</i> A. Cunn. ex Hook.	+	150
<i>Acacia trineura</i> F. Muell.	+	138
<i>Acacia tumida</i> F. Muell. ex Benth.	+	20
<i>Acacia ulicifolia</i> (Salisb.) Court var. <i>brownei</i> (Steud.) Pedley	+	159
<i>Acacia umbellata</i> Benth.	+	21
<i>Acacia verniciflua</i> A. Cunn.	+	138
<i>Acacia vestita</i> Ker Gawl.	+	138
<i>Acacia villosa</i> (Sw.) Willd.	+	20
<i>Acacia welwitschii</i> Oliv.	+	69
<i>Acacia yirrkallensis</i> Specht	+	104
<i>Acacia zanzibarica</i> (S. Moore) Taub.	+	121
<i>Acrocarpus fraxinifolius</i> Wight ex Arn.	+	69
<i>Acrocarpus fraxinifolius</i> Wight ex Arn.	-	50
<i>Adenanthera intermedia</i> Merr.	-	68
<i>Adenanthera microsperma</i> Teijsm. & Binn.	+	130
<i>Aeschynomene ciliata</i> Vogel	+	4
<i>Aeschynomene crassicaulis</i> Harms	+	4
<i>Aeschynomene cristata</i> Vatke	+	98
<i>Aeschynomene cristata</i> Vatke var. <i>pubescens</i> J. Léon	+	145
<i>Aeschynomene denticulata</i> Rudd	+	46
<i>Aeschynomene pfundii</i> Taub.	+	4
<i>Aeschynomene pratensis</i> Small	+	46
<i>Aeschynomene scabra</i> G. Don	+	46
<i>Aeschynomene tambacoundensis</i> Berhaut	+	4
<i>Aeschynomene uniflora</i> E. Mey.	+	42
<i>Aeschynomene villosa</i> Poir.	+	4
<i>Afzelia quanxensis</i> Welw.	+	78
<i>Albizia amara</i> (Roxb.) Boivin	+	69
<i>Albizia berteriana</i> (Balb. ex DC.) M. Gomez	+	69
<i>Albizia chevalieri</i> Harms	+	165
<i>Albizia dinklagei</i> (Harms) Harms	-	10
<i>Albizia edwallii</i> (Hoehne) Barneby & J.W. Grimes	+	50

Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Albizia ferruginea</i> (Guill. & Perr.) Benth.	+	163
<i>Albizia glaberrima</i> (Schumach. & Thonn.) Benth.	+	69
<i>Albizia kalkora</i> Prain	+	72
<i>Albizia kalkora</i> Prain	-	108
<i>Albizia lucidor</i> (Steud.) I.C. Nielsen ex H. Hara	+	76
<i>Albizia petersiana</i> (Bolle) Oliv.	+	69
<i>Albizia schimperana</i> Oliv.	+	69
<i>Albizia suluensis</i> Gerstner	+	61
<i>Albizia zygia</i> (DC.) J.F. Macbr.	+	163
<i>Alhagi sparsifolia</i> (Shap.) Shap.	+	72
<i>Amicia zygomeres</i> DC.	-	150
<i>Amphicarpaea trisperma</i> Miq.	+	155
<i>Amphimas pterocarpoides</i> Harms	-	150
<i>Amphithalea ericaefolia</i> (L.) Eckl. & Zeyh.	+	61
<i>Anadenanthera colubrina</i> (Vell.) Brenan	-	6
<i>Anadenanthera colubrina</i> (Vell.) Brenan var. <i>cebil</i> (Griseb.) Altschul	-	6
<i>Anadenanthera falcata</i> (Benth.) Speg.	+	87
<i>Anadenanthera peregrina</i> (L.) Speg. var. <i>falcata</i> (Benth.) Altschul	+	87
<i>Andira anthelmia</i> (Vell.) J.F. Macbr.	+	50
<i>Andira nitida</i> Mart. ex Benth.	+	53
<i>Andira spectabilis</i> Saldanha	+	68
<i>Angylocalyx oligophyllus</i> (Baker) Baker f.	-	150
<i>Anthonotha fragrans</i> (Baker f.) Exell & Hillc.	-	77
<i>Anthyllis cytisoides</i> L.	+	158
<i>Anthyllis vulneraria</i> L. ssp. <i>polyphylla</i> (DC.) Nyman	+	112
<i>Apios carnea</i> (Wall.) Benth. ex Baker	+	76
<i>Apuleia leiocarpa</i> (Vogel) J.F. Macbr.	+	68
<i>Arachis batizocoi</i> Krapov. & W.C. Greg.	+	166
<i>Arachis burkartii</i> Handro	+	28
<i>Arachis cardenasii</i> Krapov. & W.C. Greg.	+	166
<i>Arachis glabrata</i> Benth. var. <i>hagenbeckii</i> (Harms) F.J. Herm.	+	150
<i>Arachis helodes</i> Mart. ex Krapov. & W.C. Greg.	+	47
<i>Arachis monticola</i> Krapov. & Rigoni	+	166
<i>Arachis pintoii</i> Krapov. & W.C. Greg.	+	38
<i>Arachis pusilla</i> Benth.	+	28
<i>Arachis stenosperma</i> Krapov. & W.C. Greg.	+	90
<i>Archidendron basaltica</i> (F. Muell.) I.C. Nielsen	+	20
<i>Archidendron bigeminum</i> (L.) I.C. Nielsen	+	164
<i>Archidendron clypearia</i> (Jack) I.C. Nielsen	-	71
<i>Archidendron kanisii</i> R.S. Cowan	+	150
<i>Archidendropsis thozetiana</i> (F. Muell.) I.C. Nielsen	+	23
<i>Argyrolobium filiforme</i> Eckl. & Zeyh.	+	61
<i>Argyrolobium roseum</i> ssp. <i>ornithopodioides</i> (Jaub. & Spach.) Jafri & Ali	+	9
<i>Aspalathus acuminata</i> Lam. ssp. <i>pungens</i> (Thunb.) Dahlgren	+	61
<i>Aspalathus asparagoides</i> L. f. ssp. <i>asparagoides</i>	+	61
<i>Aspalathus chortophila</i> Eckl. & Zeyh. Ssp. <i>kougaensis</i> Dahlgren	+	61
<i>Aspalathus confusa</i> Dahlgren	+	61
<i>Aspalathus divaricata</i> Thunb.	+	40
<i>Aspalathus forbesii</i> Harv.	+	40
<i>Aspalathus frankenioides</i> DC.	+	61
<i>Aspalathus heterophylla</i> L. f. ssp. <i>heterophylla</i>	+	61
<i>Aspalathus hirta</i> E. Mey. ssp. <i>hirta</i>	+	61
<i>Aspalathus hispida</i> Thunb.	+	40
<i>Aspalathus lactea</i> Thunb. ssp. <i>breviloba</i> Dahlgren	+	61
<i>Aspalathus lactea</i> Thunb. ssp. <i>lactea</i>	+	61
<i>Aspalathus longifolia</i> Benth.	+	61
<i>Aspalathus longipes</i> Harv.	+	61
<i>Aspalathus nivea</i> Thunb.	+	60



Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Aspalathus opaca</i> Eckl. & Zeyh. ssp. <i>rostriloba</i> Dahlgren	+	61
<i>Aspalathus pachyloba</i> Benth. ssp. <i>macroclada</i> Dahlgren	+	61
<i>Aspalathus quinquefolia</i> L. ssp. <i>virgata</i> (Thunb.) Dahlgren	+	61
<i>Aspalathus retroflexa</i> L. ssp. <i>bicolor</i> (Eckl. & Zeyh.) Dahlgren	+	61
<i>Aspalathus spicata</i> Thunb. ssp. <i>cliffortioides</i> (Schltr.) Dahlgren	+	61
<i>Aspalathus spinosa</i> L. ssp. <i>flavispinosa</i> (Presl ex Benth.) Dahlgren	+	61
<i>Aspalathus spinosa</i> L. ssp. <i>glauca</i> (Eckl. & Zeyh.) Dahlgren	+	61
<i>Aspalathus spinosissima</i> R. Dahlgren	+	33
<i>Aspalathus ternata</i> (Thunb.) Druce	+	61
<i>Aspalathus tuberculata</i> Walp.	+	61
<i>Astragalus complanatus</i> R. Br. ex Bunge	+	162
<i>Astragalus coquimbensis</i> (Hook. & Arn.) Reiche	+	59
<i>Astragalus coronilloides</i> Ulbr.	+	162
<i>Astragalus danicus</i> Retz.	+	127
<i>Astragalus densiflorus</i> Kar. & Kir.	+	169
<i>Astragalus donianus</i> DC.	+	76
<i>Astragalus echinatus</i> Murray	+	150
<i>Astragalus epiglottis</i> L.	+	150
<i>Astragalus falciformis</i> Desf.	+	150
<i>Astragalus glauca</i> L.	+	150
<i>Astragalus gombo</i> Bunge	+	150
<i>Astragalus graveolens</i> Benth.	+	117
<i>Astragalus himalayanus</i> Klotzsch	+	150
<i>Astragalus jaegerianus</i> Munz	+	59
<i>Astragalus luristanicus</i> Freyn	+	146
<i>Astragalus miniatus</i> Bunge	+	162
<i>Astragalus palmeri</i> A. Gray	+	48
<i>Astragalus persepolitanus</i> Boiss.	+	9
<i>Astragalus politovii</i> Krylov	+	120
<i>Astragalus scaberrimus</i> Bunge	+	162
<i>Astragalus sesameus</i> L.	+	150
<i>Astragalus stevenianus</i> DC.	+	162
<i>Astragalus tibetanus</i> Benth. ex Bunge	+	76
<i>Astragalus tribuloides</i> Delile	+	9
<i>Astragalus uliginosus</i> L.	+	120
<i>Astragalus xiphocarpus</i> Benth. ex Bunge	+	76
<i>Ateleia apetala</i> Griseb.	+	150
<i>Ateleia gummifera</i> (DC.) D. Dietr.	+	150
<i>Baphia bequaertii</i> De Wild.	+	77
<i>Baphia laurifolia</i> Baill.	+	77
<i>Baphia maxima</i> Baker	+	150
<i>Baphia pubescens</i> Hook. f.	+	122
<i>Baphiopsis parviflora</i> Benth. ex Baker	-	150
<i>Bauhinia blakeana</i> Dunn	-	69
<i>Bauhinia brachycarpa</i> Wall. ex Benth.	-	72
<i>Bauhinia championii</i> (Benth.) Benth.	+	72
<i>Bauhinia hunanensis</i> Hand.Mazz.	+	72
<i>Bauhinia microstachya</i> (Raddi) J.F. Macbr.	-	50
<i>Bauhinia ornata</i> Kurz var. <i>austrosinensis</i> (Tang & Wang) T.C. Chen	-	72
<i>Bauhinia ornata</i> Kurz var. <i>kerri</i> (Gapnep.) K. Larsen & S.S. Larsen	-	72
<i>Bauhinia rufescens</i> Lam.	-	165
<i>Bauhinia scandens</i> L. var. <i>anguina</i> (Roxb.) H. Ohashi	-	76
<i>Bauhinia vahlii</i> Wight & Arn.	+	76
<i>Bauhinia variegata</i> L. var. <i>candida</i> Voigt	-	14
<i>Berlinia bracteosa</i> Benth.	-	77
<i>Berlinia craibiana</i> Baker f.	-	79
<i>Bocoa prouacensis</i> Aubl.	+	15
<i>Bossiaea bossiaeoidea</i> (A. Cunn. ex Benth.) Court	+	135

Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Bossiaea foliosa</i> A. Cunn.	+	29
<i>Brachystegia bussei</i> Harms	-	79
<i>Brachystegia cynometroides</i> Harms	-	150
<i>Brachystegia floribunda</i> Benth.	-	79
<i>Brachystegia glaberrima</i> R.E. Fr.	-	79
<i>Brachystegia longifolia</i> Benth.	-	79
<i>Brachystegia spiciformis</i> Benth.	+	69
<i>Brachystegia taxifolia</i> Harms	-	79
<i>Brachystegia wangermeeana</i> De Wild.	-	79
<i>Brownea longipedicellata</i> Huber	-	50
<i>Brya microphylla</i> Bisse	+	150
<i>Bryaspis lupulina</i> (Benth.) P.A. Duvign.	+	42
<i>Caesalpinia cacalaco</i> Bonpl.	-	69
<i>Caesalpinia digyna</i> Rottler	+	76
<i>Caesalpinia eriostachya</i> Benth.	-	44
<i>Caesalpinia pyramidalis</i> Tul.	-	50
<i>Caesalpinia sappan</i> L.	+	72
<i>Caesalpinia velutina</i> (Britton & Rose) Standl.	-	44
<i>Callerya atropurpurea</i> (Wall.) Schot	-	108
<i>Callerya cinerea</i> (Benth.) Schot	+	71
<i>Callerya reticulata</i> (Benth.) Schot	+	71
<i>Callerya speciosa</i> (Champ.) Schot	+	72
<i>Calliandra eriophylla</i> Benth.	+	20
<i>Calliandra harrisii</i> (Lindl.) Benth.	+	50
<i>Calliandra houstoniana</i> (Mill.) Standl. var. <i>calothyra</i> (Meisn.) Barneby	+	146
<i>Calliandra tergemina</i> (L.) Benth. <i>emarginata</i> (Willd.) Barneby	+	5
<i>Calpocalyx dinklagei</i> Harms	-	77
<i>Campylotropis eriocarpa</i> (DC.) Schindl.	+	131
<i>Campylotropis stenocarpa</i> (Klotzsch) Schindl.	+	117
<i>Canavalia brasiliensis</i> Mart. ex Benth.	+	30
<i>Caragana brevispina</i> Royle ex Benth.	+	117
<i>Caragana intermedia</i> Kuang & H.C. Fu	+	155
<i>Caragana leveillei</i> Kom.	-	71
<i>Caragana pleiophylla</i> (Regel) Pojark.	+	72
<i>Caragana polourensis</i> Franch.	+	72
<i>Caragana pruinosa</i> Kom.	+	156
<i>Caragana rosea</i> Turcz. ex Kom.	+	71
<i>Caragana turkestanica</i> Kom.	-	71
<i>Caragana versicolor</i> Benth.	+	169
<i>Cassia montana</i> B. Hayne ex Roth	-	143
<i>Cenostigma tocaninum</i> Ducke	-	50
<i>Centrosema macrocarpum</i> Benth.	+	2
<i>Centrosema sagittatum</i> (Humb. & Bonpl. ex Willd.) Brandegees	+	38
<i>Centrosema schottii</i> (Millsp.) K. Schum.	+	38
<i>Ceratonia siliqua</i> L.	+	82
<i>Cercis chingii</i> Chun	-	71
<i>Cercis gigantea</i> ined.	-	72
<i>Cercis glabra</i> Pamp.	-	71
<i>Chadsia grevei</i> Drake	+	149
<i>Chamaecrista capensis</i> (Thunb.) E. Mey. var. <i>flavescens</i> (E. Mey.) Vogel	+	61
<i>Chamaecrista conferta</i> (Benth.) H.S. Irwin & Barneby	+	152
<i>Chamaecrista conferta</i> (Benth.) H.S. Irwin & Barneby var. <i>virgata</i> (H.S. Irwin & Barneby) H.S. Irwin & Barneby	+	150
<i>Chamaecrista coradinii</i> Barneby	+	152
<i>Chamaecrista decumbens</i> (Benth.) H.S. Irwin & Barneby	+	150
<i>Chamaecrista desvauxii</i> (Collad.) Killip var. <i>brevipes</i> (Benth.) H.S. Irwin & Barneby	+	150
<i>Chamaecrista desvauxii</i> (Collad.) Killip var. <i>circumdatta</i> H.S. Irwin & Barneby	+	150
<i>Chamaecrista desvauxii</i> (Collad.) Killip var. <i>desvauxii</i>	+	84



Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Chamaecrista desvauxii</i> (Collad.) Killip var. <i>glauca</i> (Hassl.) H.S. Irwin & Barneby	+	52
<i>Chamaecrista desvauxii</i> (Collad.) Killip var. <i>linearis</i> (H.S. Irwin) H.S. Irwin & Barneby	+	150
<i>Chamaecrista desvauxii</i> (Collad.) Killip var. <i>mollissima</i> (Benth.) H.S. Irwin & Barneby	+	150
<i>Chamaecrista fagonioides</i> (Vogel) H.S. Irwin & Barneby	+	152
<i>Chamaecrista fagonioides</i> (Vogel) H.S. Irwin & Barneby var. <i>macrocalyx</i> (H.S. Irwin & Barneby) H.S. Irwin & Barneby	+	150
<i>Chamaecrista geminata</i> (Benth.) H.S. Irwin & Barneby	+	152
<i>Chamaecrista glandulosa</i> (L.) Greene var. <i>brasiliensis</i> (Vogel) H.S. Irwin & Barneby	+	52
<i>Chamaecrista isidorea</i> (Benth.) H.S. Irwin & Barneby	+	150
<i>Chamaecrista lineata</i> (Sw.) Greene	+	150
<i>Chamaecrista neesiana</i> (Benth.) H. Irwin & Barneby var. <i>subnitida</i> (Taub.) H. Irwin & Barneby	+	150
<i>Chamaecrista nictitans</i> (L.) Moench ssp. <i>patellaria</i> (Coll.) H.S. Irwin & Barneby var. <i>glabrata</i> (Vogel) H.S. Irwin & Barneby	+	68
<i>Chamaecrista orbiculata</i> (Benth.) H.S. Irwin & Barneby	+	152
<i>Chamaecrista orbiculata</i> (Benth.) H.S. Irwin & Barneby var. <i>orbiculata</i>	+	150
<i>Chamaecrista pilosa</i> (L.) Greene var. <i>pilosa</i>	+	24
<i>Chamaecrista plumosa</i> (E. Mey) H. Irwin & Barneby. var. <i>plumosa</i>	+	61
<i>Chamaecrista ramosa</i> (Vogel) H.S. Irwin & Barneby var. <i>curvifolia</i> (Vogel) H.S. Irwin & Barneby	+	150
<i>Chamaecrista rotundifolia</i> (Pers.) Greene var. <i>rotundifolia</i>	+	150
<i>Chamaecrista serpens</i> (L.) Greene var. <i>serpens</i>	+	150
<i>Chamaecrista serpens</i> (L.) Greene var. <i>wrightii</i> (A. Gray) H.S. Irwin & Barneby	+	68
<i>Chamaecrista tetraphila</i> Desv.	+	84
<i>Chesneya cuneata</i> (Benth.) Ali	-	117
<i>Cladrastis wilsonii</i> Takeda	+	71
<i>Clitoria sagotii</i> Fantz	+	150
<i>Cojoba arborea</i> (L.) Britton & Rose var. <i>arborea</i>	+	68
<i>Colutea istria</i> Mill.	+	44
<i>Conzattia multiflora</i> (B.L. Rob.) Standl.	-	150
<i>Craibia brevicaudata</i> (Vatke) Dunn	+	69
<i>Cratylia hypargyrea</i> Mart.	+	50
<i>Crotalaria angulata</i> Mill.	+	76
<i>Crotalaria atrorubens</i> Hochst. ex Benth.	+	49
<i>Crotalaria brevidens</i> Benth.	+	38
<i>Crotalaria brevis</i> Domin	+	65
<i>Crotalaria chinensis</i> L.	+	57
<i>Crotalaria eremaea</i> F. Muell. ssp. <i>eremaea</i>	+	65
<i>Crotalaria excisa</i> (Thunb.) Baker f.	+	60
<i>Crotalaria ferruginea</i> Graham ex Benth.	+	76
<i>Crotalaria glaucoides</i> Baker f.	+	42
<i>Crotalaria hainanensis</i> Huang	+	57
<i>Crotalaria humifusa</i> Benth.	+	76
<i>Crotalaria humilis</i> Eckl. & Zeyh.	+	60
<i>Crotalaria lathyroides</i> Guill. & Perr.	+	42
<i>Crotalaria mitchellii</i> Benth.	+	65
<i>Crotalaria perrottetii</i> DC.	+	140
<i>Crotalaria saharae</i> Coss.	+	150
<i>Crotalaria sessiliflora</i> L. ssp. <i>hazarensis</i> Ali	+	9
<i>Crotalaria sessiliflora</i> L. ssp. <i>sessiliflora</i>	+	9
<i>Crotalaria trifoliatum</i> Willd.	+	146
<i>Cryptosepalum exfoliatum</i> De Wild.	-	79
<i>Cullen australasicum</i> (Schltdl.) J.W. Grimes	+	65
<i>Cullen cinereum</i> (Lindl.) J.W. Grimes	+	65
<i>Cyathostegia mathewsii</i> (Benth.) Schery	+	150
<i>Cyclolobium vecchii</i> A. Samp. ex Hoehne	+	50

Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Cyclopia buxifolia</i> (Burm. f.) Kies	+	153
<i>Cyclopia dregeana</i> Kies	+	153
<i>Cyclopia intermedia</i> E. Mey.	+	153
<i>Cyclopia latifolia</i> DC.	+	153
<i>Cyclopia longifolia</i> Vogel	+	153
<i>Cyclopia meyeriana</i> Walp.	+	153
<i>Cyclopia pubescens</i> Eckl. & Zeyh.	+	153
<i>Cyclopia sessiliflora</i> Eckl. & Zeyh.	+	153
<i>Cyclopia subternata</i> Vogel	+	153
<i>Cylicodiscus gabunensis</i> Harms	-	150
<i>Cytisus arboreus</i> (Desf.) DC.	+	1
<i>Dahlstedtia pinnata</i> (Benth.) Malme	-	50
<i>Dalbergia albiflora</i> A. Chev. ex Hutch. & Dalziel	+	99
<i>Dalbergia balansae</i> Prain	+	72
<i>Dalbergia brasiliense</i> Vogel	+	50
<i>Dalbergia candenatensis</i> (Dennst.) Prain	+	38
<i>Dalbergia cultrata</i> Benth.	+	72
<i>Dalbergia dalzielii</i> Baker f. ex Hutch. & Dalziel	+	99
<i>Dalbergia decipularis</i> Rizzini & A. Mattos	+	50
<i>Dalbergia dyeriana</i> Prain	-	71
<i>Dalbergia hainanensis</i> Merr. & Chun	+	72
<i>Dalbergia hancei</i> Benth.	+	71
<i>Dalbergia hostilis</i> Benth.	+	99
<i>Dalbergia hupeana</i> Hance	+	72
<i>Dalbergia lanceolaria</i> L. f. var. <i>assamica</i> (Benth.) Thoth.	+	72
<i>Dalbergia miscolobium</i> Benth.	+	50
<i>Dalbergia obtusifolia</i> (Baker) Prain	+	72
<i>Dalbergia odorifera</i> T.C. Chen	+	72
<i>Dalbergia oligophylla</i> Hutch. & Dalziel	+	150
<i>Dalbergia pinnata</i> (Lour.) Prain	+	72
<i>Dalbergia riparia</i> (Mart.) Benth.	+	50
<i>Dalbergia rufa</i> G. Don	+	99
<i>Dalbergia saxatilis</i> Hook. f.	+	99
<i>Dalbergia sericea</i> G. Don	+	76
<i>Dalbergia stipulacea</i> Roxb.	+	76
<i>Dalbergia tsoi</i> Merr. & Chun	+	72
<i>Dalbergia villosa</i> (Benth.) Benth.	+	50
<i>Dalea mollissima</i> (Rydb.) Munz	+	48
<i>Dalea virgata</i> Lag.	+	150
<i>Daniellia alsteeniana</i> Duvign.	-	79
<i>Daniellia oliveri</i> (Rolfe) Hutch. & Dalziel	-	165
<i>Daviesia decurrens</i> Meisn.	+	151
<i>Daviesia horrida</i> L. Preiss ex Meisn.	+	149
<i>Daviesia mimosoides</i> R. Br.	+	114
<i>Dendrolobium dispernum</i> (Hayata) Schindl.	+	150
<i>Dendrolobium triangulare</i> (Retz.) Schindl.	+	72
<i>Derris cumingii</i> Benth.	+	43
<i>Derris cuneifolia</i> Benth.	+	76
<i>Derris marginata</i> (Roxb.) Benth.	+	76
<i>Derris trifoliata</i> Lour.	+	72
<i>Desmanthus velutinus</i> Scheele	+	146
<i>Desmodium axillare</i> (Sw.) DC.	+	38
<i>Desmodium campylocaulon</i> F. Muell. ex Benth.	+	38
<i>Desmodium concinnum</i> DC.	+	76
<i>Desmodium confertum</i> DC.	+	76
<i>Desmodium cuneatum</i> Hook. & Arn.	+	38
<i>Desmodium flagellare</i> Benth.	+	65
<i>Desmodium laburnifolium</i> (Poir.) DC.	+	143



Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Desmodium macrocarpum</i> Domin	+	65
<i>Desmodium multiflorum</i> DC.	+	131
<i>Desmodium neomexicanus</i> A. Gray	+	146
<i>Desmodium podocarpum</i> DC.	+	9
<i>Desmodium podocarpum</i> DC. var. <i>szechuenense</i> Craib	+	72
<i>Desmodium renifolium</i> (L.) Schindl.	+	76
<i>Desmodium rubrum</i> (Lour.) DC.	+	72
<i>Desmodium salicifolium</i> (Poir.) DC.	+	24
<i>Desmodium sandwicense</i> E. Mey.	+	146
<i>Desmodium sinuatum</i> Baker	+	155
<i>Desmodium trichostachyum</i> Benth.	+	65
<i>Detarium macrocarpum</i> Harms	-	150
<i>Detarium senegalense</i> J.F. Gmel.	-	165
<i>Dicorynia guianensis</i> Amshoff	+	15
<i>Dicorynia guianensis</i> Amshoff	-	62
<i>Didelotia africana</i> Baill.	-	77
<i>Dillwynia floribunda</i> Sm. var. <i>floribunda</i>	+	65
<i>Dillwynia sericea</i> A. Cunn.	+	106
<i>Dimorphandra conjugata</i> (Splitg.) Sandwith	+	150
<i>Dimorphandra vernicosa</i> Benth.	+	50
<i>Diplostropis purpurea</i> (Rich.) Amshoff var. <i>purpurea</i>	+	150
<i>Discolobium leptophyllum</i> Benth.	+	88
<i>Discolobium psoraliifolium</i> Benth.	+	109
<i>Discolobium pulchellum</i> Benth.	+	109
<i>Dorycnium pentaphyllum</i> Scop. ssp. <i>germanicum</i> (Gremli) Gamis	+	112
<i>Duparquetia orchidacea</i> Baill.	-	150
<i>Dussia martinicensis</i> Krug & Urb. ex Taub.	+	142
<i>Dussia martinicensis</i> Krug & Urb. ex Taub.	-	150
<i>Ebenopsis confinis</i> (Standl.) Barneby & J.W. Grimes	+	150
<i>Ebenus pinnata</i> Aiton	+	150
<i>Elizabetha durissima</i> Ducke	-	50
<i>Elizabetha paraensis</i> Ducke	-	50
<i>Elizabetha princeps</i> Schomb. ex Benth.	-	50
<i>Elizabetha speciosa</i> Ducke	-	50
<i>Entada africana</i> Guill. & Perr.	+	69
<i>Entada mannii</i> (Oliv.) Tisser.	+	150
<i>Entada rheedei</i> Spreng. ssp. <i>sinohimalensis</i> (Grierson & Long) Panigr.	+	76
<i>Eriosema ellipticifolium</i> Schinz	+	61
<i>Eriosema glomeratum</i> (Guill. & Perr.) Hook. f.	+	42
<i>Erythrina americana</i> Mill.	+	69
<i>Erythrina arborescens</i> Roxb.	+	76
<i>Erythrina barqueroana</i> Krukoff & Barneby	+	50
<i>Erythrina brucei</i> Schweinf.	+	8
<i>Erythrina cochleata</i> Stnagl.	+	44
<i>Erythrina edulis</i> Triana	+	137
<i>Erythrina sandwicensis</i> O. Deg.	+	44
<i>Erythrina senegalensis</i> DC.	+	165
<i>Erythrophleum chlorostachys</i> (F. Muell.) Baill.	+	150
<i>Erythrophleum fordii</i> Oliv.	+	41
<i>Erythrophleum ivorense</i> A. Chev.	+	77
<i>Exostyles venusta</i> Spreng.	-	50
<i>Eysenhardtia polystachya</i> (Ortega) Sarg.	-	68
<i>Eysenhardtia texana</i> Scheele	+	146
<i>Flemingia procumbens</i> Roxb.	+	131
<i>Flemingia prostrata</i> Roxb.	+	150
<i>Galactia rubra</i> (Jacq.) Urb.	+	150
<i>Gastrolobium bilobium</i> R. Br.	+	151
<i>Genista falcata</i> Brot.	+	60

Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Genista ferox</i> Poir.	+	150
<i>Genista microcephala</i> Coss. & Durieru	+	150
<i>Genista numidica</i> Spach ssp. <i>numidica</i>	+	150
<i>Genista tinctoria</i> L. var. <i>ovata</i> (Waldst. & Kit) F.W. Schultz	+	5
<i>Genista tricuspidata</i> Desf.	+	150
<i>Gilbertiodendron mayombense</i> (Pellegr.) J. L. onard	-	77
<i>Gleditsia amorphoides</i> (Griseb.) Taub.	-	6
<i>Gleditsia australis</i> Hemsl.	-	71
<i>Gleditsia japonica</i> Miq. var. <i>japonica</i>	-	73
<i>Gleditsia japonica</i> Miq. var. <i>velutina</i> L.C. Li	-	71
<i>Gleditsia macrantha</i> Desf.	+	130
<i>Gliricidia sepium</i> (Jacq.) Kunth ex Walp.	-	108
<i>Glycine falcata</i> Benth.	+	65
<i>Glycine microphylla</i> (Benth.) Tindale	+	75
<i>Glycine soja</i> Siebold & Zucc.	+	146
<i>Glycyrrhiza pallidiflora</i> Maxim.	+	32
<i>Gueldenstaedtia himalaica</i> Baker	+	169
<i>Gueldenstaedtia multiflora</i> Bunge	+	155
<i>Gueldenstaedtia verna</i> (Georgi) Boriss.	+	156
<i>Gueldenstaedtia verna</i> (Georgi) Boriss. ssp. <i>multiflora</i> (Bunge) H.P. Tsui	+	156
<i>Gymnocladus chinensis</i> Baill.	-	72
<i>Harpalyce cubensis</i> Griseb.	+	150
<i>Harpalyce macrocarpa</i> Britton & P. Wilson	+	150
<i>Hedysarum aculeolatum</i> Boiss.	+	150
<i>Hedysarum carnosum</i> Desf.	+	146
<i>Hedysarum flexosum</i> L.	+	146
<i>Hedysarum humile</i> L.	+	150
<i>Hedysarum pallens</i> Desf.	+	95
<i>Hedysarum pallidum</i> Desf.	+	150
<i>Hesperalbizia occidentalis</i> (Brandege) Barbeny & J.W. Grimes	+	150
<i>Hippocrepis minor</i> Munby	+	150
<i>Humboldtia laurifolia</i> Vahl	+	164
<i>Hymenolobium janeirensense</i> Kuhlman	-	50
<i>Hymenostegia afzelii</i> (Oliv.) Harms	-	77
<i>Hypocalyptus coluteoides</i> (Lam.) R. Dahlgren	+	150
<i>Indigastrum parviflorum</i> (Heyne ex Wight & Arn.) Schrire	+	65
<i>Indigofera amoena</i> Aiton	+	60
<i>Indigofera aquae-nitensis</i> Bremek.	+	60
<i>Indigofera argyraea</i> Eckl. & Zeyh.	+	60
<i>Indigofera brevidens</i> Benth.	+	167
<i>Indigofera bungeana</i> Walp.	+	71
<i>Indigofera candicans</i> Aiton	+	60
<i>Indigofera capillaris</i> Thunb.	+	60
<i>Indigofera chuniana</i> F.P. Metcalf	+	72
<i>Indigofera coriacea</i> Aiton var. <i>coriacea</i>	+	61
<i>Indigofera coriacea</i> Aiton var. <i>minor</i> (E. Mey.) Harv.	+	61
<i>Indigofera cylindracea</i> Wall. ex Baker	+	76
<i>Indigofera daleoides</i> Benth. ex Harv. var. <i>daleoides</i>	+	61
<i>Indigofera filifolia</i> Thunb.	+	61
<i>Indigofera flabellata</i> Harv.	+	60
<i>Indigofera fortunei</i> Craib	+	71
<i>Indigofera galegoides</i> DC.	+	72
<i>Indigofera hebepetala</i> Benth. Ex Baker	+	76
<i>Indigofera heterantha</i> Brandis	+	117
<i>Indigofera incana</i> Thunb.	+	61
<i>Indigofera lespedezioides</i> Kunth	-	83
<i>Indigofera linnaei</i> Ali	+	38
<i>Indigofera litoralis</i> Chun & T.C. Chen	+	57



Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Indigofera miniata</i> Ortega var. <i>leptosepala</i> (Nutt. ex Torr. A. Gray) B.L. Turner	+	146
<i>Indigofera neglectum</i> Ledeb.	+	146
<i>Indigofera paniculata</i> Pers.	+	49
<i>Indigofera pratensis</i> F. Muell.	+	65
<i>Indigofera pulchra</i> Willd.	+	49
<i>Indigofera rhodantha</i> Fourc.	+	60
<i>Indigofera senegalensis</i> Lam.	+	42
<i>Indigofera simplicifolia</i> Lam.	+	49
<i>Indigofera trifoliata</i> L.	+	38
<i>Indigofera hendecaphylla</i> Jacq.	+	146
<i>Indopiptadenia oudhensis</i> (Brandis) Brenan	+	76
<i>Inga chocoensis</i> Killip ex T.S. Elias	+	150
<i>Inga congesta</i> T.D. Penn.	+	50
<i>Inga cordistipula</i> Mart.	+	50
<i>Inga hispida</i> Schott ex Benth.	+	50
<i>Inga jinicuil</i> G. Don	+	69
<i>Inga lenticifolia</i> Benth.	+	50
<i>Inga maritima</i> Benth.	+	50
<i>Inga nobilis</i> Willd. ssp. <i>quaternata</i> (Poepp. & Endl.) T.D. Penn.	+	68
<i>Inga oerstedia</i> Benth.	+	69
<i>Inga semialata</i> (Vell.) Mart.	+	136
<i>Isobertinia angolensis</i> (Benth.) Hoyle & Brenan	-	79
<i>Isotropis atropurpurea</i> F. Muell.	+	167
<i>Jacksonia dilatata</i> Benth.	+	135
<i>Julbernardia paniculata</i> (Benth.) Troupin	-	79
<i>Koompassia malaccensis</i> Maingay ex Benth.	-	69
<i>Lablab pourpureus</i> (L.) Sweet subsp. <i>Purpureus</i>	+	5
<i>Lathyrus humilis</i> (Ser.) Fischer ex Spreng.	+	9
<i>Lathyrus lanszwertii</i> Kellogg var. <i>leucanthus</i> (Rydb.) Dorn	+	91
<i>Lathyrus littoralis</i> (Nutt.) Endl.	+	80
<i>Lathyrus szowitsii</i> Boiss.	+	27
<i>Lebeckia multiflora</i> E. Mey.	+	50
<i>Leptoderris nobilis</i> (Bajer) Dunn	+	150
<i>Lеспедеза buergeri</i> Miq.	+	72
<i>Lеспедеза chinensis</i> G. Don	+	72
<i>Lеспедеза daurica</i> (Laxm.) Schindl	+	146
<i>Lеспедеза</i> × <i>divaricata</i> (Nakai) T.B. Lee	+	150
<i>Lеспедеза floribunda</i> Bunge	+	72
<i>Lеспедеза formosa</i> (Vogel) Koehne ssp. <i>elliptica</i> (Benth. ex Maxim.) S. Akiyama & H. Ohba	+	72
<i>Lеспедеза homoloba</i> Nakai	+	61
<i>Lеспедеза japonica</i> L.H. Bailey	+	146
<i>Lеспедеза tomentosa</i> (Thunb.) Siebold ex Maxim.	+	146
<i>Lessertia brachypus</i> Harv.	+	60
<i>Lessertia capitata</i> E. Mey.	+	60
<i>Lessertia diffusa</i> R. Br.	+	60
<i>Lessertia excisa</i> DC.	+	60
<i>Lessertia inflata</i> Harv.	+	61
<i>Lessertia macrostachya</i> DC.	+	60
<i>Lessertia spinescens</i> E. Mey.	+	60
<i>Leucaena collinsii</i> Britton & Rose	+	69
<i>Leucaena collinsii</i> Britton & Rose ssp. <i>collinsii</i>	+	116
<i>Leucaena collinsii</i> Britton & Rose ssp. <i>zacapana</i> C.E. Hughes	+	116
<i>Leucaena cuspidata</i> Standl.	+	116
<i>Leucaena esculenta</i> (DC.) Benth. ssp. <i>esculenta</i>	+	153
<i>Leucaena esculenta</i> (DC.) Benth. ssp. <i>matudae</i> Z rate	+	153
<i>Leucaena greggii</i> S. Watson	+	116
<i>Leucaena involucrata</i> Z rate	+	116

Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Leucaena lanceolata</i> S. Watson	+	69
<i>Leucaena lanceolata</i> S. Watson ssp. <i>lanceolata</i>	+	116
<i>Leucaena lanceolata</i> S. Watson ssp. <i>sousae</i> Z rate	+	116
<i>Leucaena lanceolata</i> S. Watson var. <i>lanceolata</i>	+	116
<i>Leucaena lanceolata</i> S. Watson var. <i>sousae</i> (Z rate) C.E. Hughes	+	116
<i>Leucaena lempirana</i> C.E. Hughes	+	116
<i>Leucaena macrophylla</i> Benth.	+	69
<i>Leucaena macrophylla</i> Benth. ssp. <i>macrophylla</i>	+	116
<i>Leucaena macrophylla</i> Benth. ssp. <i>nelsonii</i> (Britton & Rose) Z rate	+	116
<i>Leucaena magnifica</i> (C.E. Hughes) C.E. Hughes	+	116
<i>Leucaena matudae</i> (Z rate) C.E. Hughes	+	116
<i>Leucaena multicapitula</i> Schery	+	116
<i>Leucaena pallida</i> Britton & Rose	+	20
<i>Leucaena pueblana</i> Britton & Rose	+	116
<i>Leucaena retusa</i> Benth.	+	69
<i>Leucaena retusa</i> Benth.	-	70
<i>Leucaena salvadorensis</i> Standl. ex Britton & Rose	+	76
<i>Leucaena shannonii</i> Donn. Sm.	+	69
<i>Leucaena shannonii</i> Donn. Sm. ssp. <i>magnifica</i> C.E. Hughes	+	116
<i>Leucaena shannonii</i> Donn. Sm. ssp. <i>shannonii</i>	+	116
<i>Leucaena trichandra</i> (Zucc.) Urb.	+	116
<i>Leucomphalos capparideus</i> Planch.	-	150
<i>Liparia parva</i> Vogel ex Walp.	+	61
<i>Liparia splendens</i> (Burm. f.) Bos & De Wit ssp. <i>splendens</i>	+	61
<i>Loesenera talbotii</i> Baker f.	-	150
<i>Lonchocarpus filipes</i> Benth.	+	50
<i>Lonchocarpus leucanthus</i> Burkart	+	50
<i>Lonchocarpus muehlbergianus</i> Hassl.	+	50
<i>Lonchocarpus roseus</i> (Mill.) DC.	+	142
<i>Lonchocarpus spruceanus</i> Benth.	+	50
<i>Lotononis benthamiana</i> Dumm.	+	60
<i>Lotononis brachyloba</i> Benth.	+	60
<i>Lotononis digitata</i> Harv.	+	61
<i>Lotononis falcata</i> (E. Mey.) Benth.	+	60
<i>Lotononis foliosa</i> H. Bol.	+	60
<i>Lotononis lenticula</i> (E. Mey.) Benth.	+	61
<i>Lotononis leptoloba</i> H. Bol.	+	60
<i>Lotononis longiflora</i> H. Bol.	+	60
<i>Lotononis magnistipulata</i> Dumm.	+	60
<i>Lotononis maximiliani</i> De Wild.	+	60
<i>Lotononis pentaphylla</i> Benth.	+	60
<i>Lotononis quinata</i> Benth.	+	60
<i>Lotononis serpens</i> (E. Mey.) Dahlgren	+	61
<i>Lotononis strigillosa</i> (Merxm. & A. Schreib.) A. Schreib.	+	61
<i>Lotus alpinus</i> (DC.) Schleich. ex Ramond	+	85
<i>Lotus corniculatus</i> L. var. <i>hirsutus</i> W.D.J. Kock	+	112
<i>Lotus kyylovii</i> Schischk. & Serg.	+	125
<i>Lotus macrotrichus</i> Boiss.	+	89
<i>Lotus mearnsii</i> (Britton) Greene	+	58
<i>Lotus preslii</i> Ten.	+	66
<i>Lotus rigidus</i> (Benth.) Greene	+	48
<i>Lotus salsuginosus</i> Greene	+	146
<i>Lotus schoelleri</i> Schweinf.	+	125
<i>Lotus strigosus</i> (Nutt.) Greene var. <i>tomentellus</i> (Greene) Isely	+	48
<i>Luetzelburgia auriculata</i> (Allemao) Ducke	-	50
<i>Luetzelburgia guaissara</i> Toledo	-	50
<i>Lupinus argenteus</i> Pursh	+	146
<i>Lupinus argenteus</i> Pursh var. <i>holosericeus</i> (Nutt.) Barneby	+	92



Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Lupinus argenteus</i> Pursh var. <i>rubricaulis</i> (Greene) S.L. Welsh	+	91
<i>Lupinus atlanticus</i> Gladst.	+	146
<i>Lupinus campestris</i> Schltdl. & Cham.	+	12
<i>Lupinus chamissonis</i> Eschsch.	+	80
<i>Lupinus cosentinii</i> Guss.	+	128
<i>Lupinus exaltatus</i> Zucc.	+	12
<i>Lupinus formosus</i> Greene	+	146
<i>Lupinus hispanicus</i> Boiss. & Reut.	+	146
<i>Lupinus meridanus</i> Moritz ex C.P. Sm.	+	160
<i>Lupinus montanus</i> Kunth	+	12
<i>Lupinus princei</i> Harms	+	81
<i>Lupinus sericeus</i> Pursh	+	146
<i>Lupinus texensis</i> Hook.	+	5
<i>Lysiloma divaricatum</i> (Jacq.) J.F. Macbr.	+	150
<i>Lysiloma latisiliquum</i> (L.) Benth.	+	118
<i>Lysiloma tergeminum</i> Benth.	+	150
<i>Machaerium angustifolium</i> Vogel	+	50
<i>Machaerium arboreum</i> (Jacq.) Vogel	+	126
<i>Machaerium brasiliense</i> Vogel	+	50
<i>Machaerium gracile</i> Benth.	+	50
<i>Machaerium hirtum</i> (Vell.) Stellfield	+	50
<i>Machaerium milleflorum</i> Pittier	+	126
<i>Machaerium myrianthum</i> Benth.	+	150
<i>Machaerium quinatum</i> (Aubl.) Sandwith var. <i>quinatum</i>	+	150
<i>Machaerium stipitatum</i> (DC.) Vogel	+	50
<i>Machaerium triste</i> Vogel	+	50
<i>Macroptilium gibbosifolium</i> (Ortega) A. Delgado	+	146
<i>Macroptilium gracile</i> (Poepp. ex Benth.) Urb.	+	38
<i>Macrotyloma uniflorum</i> (Lam.) Verdc.	+	146
<i>Medicago archiducis-nicolai</i> Sirj.	+	169
<i>Medicago doliata</i> Carmign.	+	11
<i>Medicago granadensis</i> Willd.	+	22
<i>Medicago noeana</i> Boiss.	+	119
<i>Medicago polyceratia</i> (L.) Trautv.	+	86
<i>Medicago radiata</i> L.	+	42
<i>Medicago rigiduloides</i> E. Small	+	11
<i>Medicago rotata</i> Boiss.	+	146
<i>Medicago sativa</i> L. nothosp. <i>Varia</i> (Martyn) Arcang.	+	147
<i>Meizotropis buteiformis</i> Voigt	+	76
<i>Melilotus infestus</i> Guss.	+	150
<i>Melilotus macrocarpus</i> Coss. & Durieru	+	150
<i>Melilotus officinalis</i> Lam.	+	5
<i>Melolobium aethiopicum</i> (L.) Druce	+	61
<i>Melolobium calycinum</i> Benth.	+	60
<i>Melolobium humile</i> Eckl. & Zeyh.	+	60
<i>Microberlinia bisulcata</i> A. Chev.	-	150
<i>Mildbraediodendron excelsum</i> Harms	-	150
<i>Millettia extensa</i> (Benth.) Benth. ex Baker	+	76
<i>Millettia ferruginea</i> (Hochst.) Baker	+	67
<i>Millettia glaucescens</i> Kurz	+	76
<i>Millettia laurentii</i> De Wild.	+	93
<i>Millettia thonningii</i> (Schumach.) Baker	+	69
<i>Millettia usaramoensis</i> Taub.	+	5
<i>Mimosa affinis</i> B.L. Rob.	+	161
<i>Mimosa arenosa</i> (Willd.) Poir. Var. <i>arenosa</i>	+	68
<i>Mimosa artemisiana</i> Heringer & Paula	+	50
<i>Mimosa ceratonia</i> L.	+	68
<i>Mimosa laticifera</i> Rizzini & A. Mattos	+	50

Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Mimosa luisana</i> Brandege	+	150
<i>Mimosa ophthalmocentra</i> Mart. ex Benth.	+	150
<i>Mimosa polyantha</i> Benth.	+	150
<i>Mimosa quadrivalvis</i> L. var. <i>nutallii</i> (DC.) Beard	+	146
<i>Mimosa rubicaulis</i> Lam. ssp. <i>himalayana</i> (Gamble) H. Ohashi	+	76
<i>Mucuna bracteata</i> DC. ex Kurz	+	97
<i>Mucuna sempervirens</i> Hemsl.	+	71
<i>Neonotonia wightii</i> (Wight & Arn) J.A. Lackey	+	38
<i>Neptunia pubescens</i> Benth.	+	88
<i>Newtonia hildebrandtii</i> (Vatke) Torre	-	68
<i>Omosia krugii</i> Urb.	+	68
<i>Onobrychis kabylica</i> (Bornm.) Sirj.	+	150
<i>Onobrychis paucidentata</i> Pomel	+	150
<i>Ononis alba</i> Poir.	+	150
<i>Ononis antennata</i> Pomel ssp. <i>antennata</i>	+	150
<i>Ononis euphrasiifolia</i> Desf.	+	150
<i>Ornocarpum sennoides</i> (Willd.) DC.	+	50
<i>Ormosia apiculata</i> L. Chen	+	72
<i>Ormosia emarginata</i> (Hook. & Arn.) Benth.	+	72
<i>Ormosia glauca</i> Wall.	+	76
<i>Ormosia henryi</i> Prain	+	72
<i>Ormosia hosei</i> Hemsl. & E.H. Wilson	+	71
<i>Ormosia pinnata</i> (Lour.) Merr.	+	41
<i>Ormosia semicastrata</i> Hance	+	72
<i>Ormosia semicastrata</i> Hance f. <i>litchiifolia</i> F.C. How	+	72
<i>Ormosia semicastrata</i> Hance f. <i>pallida</i> F.C. How	+	72
<i>Ormosia xylocarpa</i> Chun ex Merr. & L. Chen	+	71
<i>Otholobium glandulosum</i> (L.) J.W. Grimes	+	38
<i>Otholobium striatum</i> (Thunb.) C.H. Stirt.	+	60
<i>Oxylobium scandens</i> (Sm.) Benth.	+	150
<i>Oxyrhynchus volubilis</i> Brandege	+	149
<i>Oxytropis anertii</i> Nakai	+	150
<i>Oxytropis campanulata</i> Vassilcz.	+	113
<i>Oxytropis kansuensis</i> Bunge	+	169
<i>Oxytropis melanocalyx</i> Bunge	+	169
<i>Oxytropis nigrescens</i> (Pall.) Fisch. ex DC. var. <i>uniflora</i> (Hook.) Barneby	+	133
<i>Oxytropis sericea</i> Nutt.	+	27
<i>Oxytropis splendens</i> Douglas ex Hook.	+	101
<i>Pachyrhizus ahipa</i> (Wedd.) Parodi	+	96
<i>Pachyrhizus tuberosus</i> (Lam.) Spreng.	+	146
<i>Paramacrolobium coeruleum</i> (Taub.) J. Léonard	+	69
<i>Parapiptadenia excelsa</i> (Griseb.) Burkart	+	6
<i>Paraserianthes toona</i> (F.M. Bailey) I.C. Nielsen	+	20
<i>Parkia bicolor</i> A. Chev.	+	150
<i>Parkia biglobosa</i> (Jacq.) R. Br. ex G. Don	+	165
<i>Parkia filicoidea</i> Welw. ex Oliv.	+	20
<i>Parkia ulei</i> (Harms) Kuhlm. var. <i>surinamensis</i> Kleinhoonte	-	150
<i>Parkinsonia aculeata</i> L.	+	68
<i>Parkinsonia microphylla</i> Torr.	-	26
<i>Peltophorum dasyrhachis</i> (Miq.) Kurz	-	139
<i>Pentaclethra macrophylla</i> Benth.	+	44
<i>Phaseolus coccineus</i> L. subsp. <i>coccineus</i>	+	5
<i>Phaseolus coccineus</i> L. var. <i>darwinianus</i> Hern.-Xol. & Miranda-Colín	+	146
<i>Phaseolus filiformis</i> Benth.	+	146
<i>Piptadeniastrum africanum</i> (hook. f.) Brenan	+	93
<i>Piscidia grandifolia</i> (Donn. Sm.) I.M. Johnst.	+	150
<i>Pithecellobium diversifolium</i> Benth.	+	50
<i>Plathymenia foliolosa</i> Benth.	+	154



Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Podalyria burchellii</i> DC.	+	60
<i>Podalyria canescens</i> E. Mey.	+	61
<i>Podalyria cordata</i> R. Br.	+	61
<i>Podalyria velutina</i> Benth.	+	60
<i>Poitea punicea</i> (Urb.) Lavin	+	68
<i>Pongamia pinnata</i> (L.) Pierre	-	108
<i>Prosopis affinis</i> Spreng.	+	56
<i>Prosopis africana</i> (Guille. et al.) Taub.	+	69
<i>Prosopis alba</i> Griseb.	+	69
<i>Prosopis articulata</i> S. Watson	+	69
<i>Prosopis ferox</i> Griseb.	+	6
<i>Prosopis flexuosa</i> DC.	+	6
<i>Prosopis glandulosa</i> Torr. var. <i>glandulosa</i>	+	54
<i>Prosopis glandulosa</i> Torr. var. <i>torreyana</i> (L.D. Benson) M.C. Johnst.	+	48
<i>Prosopis kuntzei</i> Harms	+	69
<i>Prosopis pallida</i> (Humb. & Bonpl. ex Willd.) Kunth	+	69
<i>Prosopis ruscifolia</i> Griseb.	+	69
<i>Prosopis tamarugo</i> F. Phil.	+	69
<i>Prosopis velutina</i> Wooton	+	54
<i>Psoralea aculeata</i> L.	+	61
<i>Psoralea affinis</i> Eckl. & Zeyh.	+	61
<i>Psoralea alata</i> (Thunb.) T.M. Salter	+	61
<i>Psoralea verrucosa</i> Willd.	+	61
<i>Psorothamnus emoryi</i> (A. Gray) Rydb.	+	48
<i>Psorothamnus schottii</i> (Torr.) Barneby	+	48
<i>Pterocarpus macrocarpus</i> Kurz	+	148
<i>Pterocarpus osun</i> Craib	+	150
<i>Pterocarpus santalinus</i> L. f.	+	143
<i>Pueraria montana</i> (Lour.) Merr. var. <i>montana</i>	+	5
<i>Pueraria montana</i> (Lour.) Merr. var. <i>thomsonii</i> (Benth.) Wiersema ex D.B. Ward	+	72
<i>Pueraria wallichii</i> DC.	+	76
<i>Pycnospora lutescens</i> (Poir.) Schindl.	+	65
<i>Racosperma oshanesii</i> (F. Muell. & Maiden) Pedley	+	63
<i>Rafnia axillaris</i> Thunb.	+	61
<i>Rafnia capensis</i> (L.) Druce	+	61
<i>Rafnia racemosa</i> Eckl. & Zeyh.	+	61
<i>Recordoxylon speciosum</i> (Benoist) Gazel ex Barneby	+	62
<i>Rhynchosia cunninghamii</i> Benth.	+	24
<i>Rhynchosia harveyi</i> Eckl. & Zeyh.	+	61
<i>Rhynchosia himalensis</i> Benth. ex Baker	+	9
<i>Rhynchosia hirsuta</i> Eckl. & Zeyh.	+	60
<i>Rhynchosia namaensis</i> Schinz	+	60
<i>Rothia indica</i> (L.) Druce	+	16
<i>Samanea inopinata</i> (Harms) Barneby & J.W. Grimes	+	50
<i>Schizolobium parahyba</i> (Vell.) S.F. Macbr.	+	68
<i>Schleinitzia insularum</i> (Guill.) Burkart	+	38
<i>Sclerolobium guianensis</i> Benth.	+	136
<i>Sclerolobium melinonii</i> Harms	+	62
<i>Sclerolobium pilgerianum</i> Harms	+	50
<i>Senna australis</i> (Vell.) H.S. Irwin & Barneby	-	50
<i>Senna aversiflora</i> (Herb.) H.S. Irwin & Barneby	-	50
<i>Senna barclayana</i> (Sweet) Randell var. <i>barclayana</i>	+	88
<i>Senna cumingii</i> (Hook. & Arn.) H.S. Irwin & Barneby	-	6
<i>Senna lindheimeriana</i> (Scheele) H.S. Irwin & Barneby	-	6
<i>Senna obtusifolia</i> (L.) H.S. Irwin & Barneby	+	132
<i>Senna septemtrionalis</i> (Viv.) H.S. Irwin & Barneby	+	72
<i>Senna silvestris</i> (Vell.) H.S. Irwin & Barneby ssp. <i>silvestris</i> var. <i>sapindifolia</i> (Vogel) H.S. Irwin & Barneby	-	50

Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Senna tora</i> (L.) Roxb.	+	107
<i>Sesbania benthamiana</i> Domin	+	65
<i>Sesbania brachycarpa</i> F. Muell.	+	65
<i>Sesbania emerus</i> (Aubl.) Urb.	+	142
<i>Sesbania erubescens</i> (Benth.) N.T. Burb.	+	65
<i>Sesbania exasperata</i> Kunth	+	51
<i>Sesbania goetzei</i> Harms	+	110
<i>Sesbania leptocarpa</i> DC.	+	49
<i>Sesbania macroptera</i> Micheli	-	6
<i>Sesbania pachycarpa</i> DC.	+	42
<i>Sesbania sesban</i> (L.) Merr. ssp. <i>punctata</i> (DC.) J.B. Gillett	+	141
<i>Sesbania sesban</i> (L.) Merr. ssp. <i>sesban</i>	+	111
<i>Shutteria densiflora</i> Benth.	+	131
<i>Shutteria involucrata</i> (Wall.) Wight & Arn. var. <i>involucrata</i>	-	71
<i>Sindora siamensis</i> Miq. var. <i>siamensis</i>	-	50
<i>Sindora tonkinensis</i> K. Larsen & S.S. Larsen	+	72
<i>Smirnowia turkestanica</i> Bunge	+	150
<i>Smithia ciliata</i> Royle	+	76
<i>Sophora albescens</i> (Rehder) C.Y. Ma	+	72
<i>Sophora microphylla</i> Aiton	-	6
<i>Sophora mollis</i> (Royle) Baker ssp. <i>griffithii</i> (Stocks) Ali	+	9
<i>Sophora tetraptera</i> J.F. Mill.	+	89
<i>Spatholobus harmondii</i> Gagnep.	+	72
<i>Spatholobus parviflorus</i> (Roxb. ex DC.) Kuntze	+	76
<i>Stahlia monosperma</i> (Tul.) Urb.	-	68
<i>Stylosanthes angustifolia</i> Vogel	+	37
<i>Stylosanthes bracteata</i> Vogel	+	34
<i>Stylosanthes calcicola</i> Small	+	37
<i>Stylosanthes debilis</i> M.B. Ferreira & Sousa Costa	+	34
<i>Stylosanthes guianensis</i> (Aubl.) Sw. var. <i>intermedia</i> (Vogel) Hassl.	+	34
<i>Stylosanthes guianensis</i> (Aubl.) Sw. var. <i>marginata</i> Hassl.	+	34
<i>Stylosanthes guianensis</i> (Aubl.) Sw. var. <i>robusta</i> 't Mannetje	+	34
<i>Stylosanthes linearifolia</i> M.B. Ferreira & Sousa Costa	+	34
<i>Stylosanthes macrocarpa</i> S.F. Blake	+	37
<i>Stylosanthes macrocephala</i> M.B. Ferreira & Sousa Costa	+	34
<i>Stylosanthes pilosa</i> M.B. Ferreira & Sousa Costa	+	34
<i>Stylosanthes ruellioides</i> Mart. ex Benth.	+	34
<i>Stylosanthes sympodialis</i> Taub.	+	3
<i>Stylosanthes tomentosa</i> M.B. Ferreira & Sousa Costa	+	34
<i>Swainsona calcicola</i> Joy Thomps.	+	167
<i>Swainsona kingii</i> F. Muell.	+	167
<i>Swainsona leeana</i> J.Z. Weber	+	167
<i>Swainsona maccullochiana</i> F. Muell.	+	167
<i>Swainsona oroboides</i> F. Muell.	+	65
<i>Swainsona pterostylis</i> (DC.) Bakh. f.	+	167
<i>Swartzia apetala</i> Raddi	+	50
<i>Swartzia caribaea</i> Griseb.	+	142
<i>Swartzia jenmanii</i> Sandwith	+	150
<i>Swartzia pinnata</i> (Vahl) Willd.	-	108
<i>Swartzia simplex</i> (Sw.) Spreng. var. <i>ochracea</i> (DC.) R.S. Cowan	+	52
<i>Tachigali aurea</i> Tul.	+	69
<i>Tachigali guianensis</i> (Benth.) Zarruchi & Herend.	-	136
<i>Tachigali melinonii</i> (Harms) Zarucchi & Herend.	+	62
<i>Tachigali paniculata</i> Aubl. var. <i>alba</i> (Ducke) Dwyer	+	50
<i>Tachigali rugosa</i> (Mart. ex Benth.) Zarucchi & Pipoly	+	50
<i>Tadehagi triquetrum</i> (L.) H. Ohashi	+	38
<i>Tadehagi triquetrum</i> (L.) H. Ohashi ssp. <i>pseudotriquetrum</i> (DC.) H. Ohashi	+	72
<i>Tephrosia apollina</i> (Delile) Link	+	86



Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Tephrosia baurei</i> Benth. ex A. Gray	+	65
<i>Tephrosia brachyodon</i> Domin	+	65
<i>Tephrosia bracteolata</i> Guill. & Perr.	+	42
<i>Tephrosia capensis</i> (Jacq.) Pers. var. <i>angustifolia</i> E. Mey.	+	61
<i>Tephrosia capensis</i> (Jacq.) Pers. var. <i>capensis</i>	+	61
<i>Tephrosia cephalantha</i> Baker	+	5
<i>Tephrosia dietrichii</i> Domin	+	65
<i>Tephrosia elongata</i> E. Mey. var. <i>tzaneenensis</i> (H.M. Forbes) Brummitt	+	60
<i>Tephrosia filipes</i> Benth.	+	65
<i>Tephrosia flagellaris</i> Domin	+	65
<i>Tephrosia juncea</i> R. Br. ex Benth.	+	38
<i>Tephrosia pallens</i> (Aiton) Pers.	+	61
<i>Tephrosia purpurea</i> (L.) Pers. ssp. <i>canescens</i> (E. Mey.) Brummitt	+	61
<i>Tephrosia purpurea</i> (L.) Pers. Var. <i>maritima</i> Haines	+	16
<i>Tephrosia rufula</i> Pedley	+	65
<i>Tephrosia supina</i> Domin	+	65
<i>Tephrosia virgata</i> H.M. Forbes	+	61
<i>Tephrosia zoutpansbergensis</i> Bremek.	+	61
<i>Tetraberlinia bifoliata</i> (Harms) Hauman	-	77
<i>Tetraberlinia moreliana</i> Aubr, v.	-	77
<i>Thermopsis barbata</i> Benth.	+	117
<i>Thermopsis lanceolata</i> R. Br.	+	150
<i>Trifolium africanum</i> Ser. var. <i>africanum</i>	+	153
<i>Trifolium africanum</i> Ser. var. <i>glabellum</i> (E. Mey.) Harv.	+	153
<i>Trifolium amabile</i> Kunth	+	146
<i>Trifolium canescens</i> Willd.	+	146
<i>Trifolium dasyphyllum</i> Torr. & A. Gray	+	19
<i>Trifolium decorum</i> Chiov.	+	55
<i>Trifolium echinatum</i> M. Bieb. Var. <i>carmeli</i> (Boiss.) Gibelli & Belli	+	9
<i>Trifolium haydenii</i> Porter	+	5
<i>Trifolium heldreichianum</i> (Gibelli & Belli) Hausskn.	+	146
<i>Trifolium lanceolatum</i> (J.B. Gillett) J.B. Gillett	+	27
<i>Trifolium mattirolanum</i> Chiov.	+	150
<i>Trifolium nanum</i> Torr.	+	92
<i>Trifolium parryi</i> A. Gray	+	92
<i>Trifolium plebeium</i> Boiss.	+	150
<i>Trifolium procumbens</i> L.	+	5
<i>Trifolium quartinianum</i> A. Rich.	+	55
<i>Trifolium scutatum</i> Boiss.	+	150
<i>Trifolium simense</i> Fresen.	+	38
<i>Trigonella cretica</i> (L.) Brot.	-	60
<i>Trigonella glabra</i> Thunb. subsp. <i>uncata</i> (Boiss. & Noe) Lassen	+	9
<i>Uraria cylindracea</i> Benth.	+	65
<i>Uraria lagopus</i> DC.	+	76
<i>Uraria lagopus</i> DC. var. <i>neglecta</i> (Prain) H. Ohashi	+	76
<i>Uraria rufescens</i> (DC.) Schindl.	+	76
<i>Vandasina retusa</i> (Sol. ex Benth.) Rauschert	+	150
<i>Vatairea heteroptera</i> (Allemao) Ducke	-	50
<i>Vicia amurensis</i> Oett.	+	150
<i>Vicia bungei</i> Ohwai	+	169
<i>Vicia faba</i> L. var. <i>major</i> (Harz.) Beck	+	168
<i>Vicia faba</i> L. var. <i>minuta</i> (Hort. ex Alef.) Mansf.	+	168
<i>Vicia pseudoorobus</i> Fisch. & C.A. Mey.	+	150
<i>Vicia ramuliflora</i> (Maxim.) Ohwi	+	150
<i>Vicia serratifolia</i> Jacq.	+	146
<i>Vicia sylvatica</i> L.	+	150
<i>Vicia venosa</i> (Willd. ex Link) Maxim.	+	150
<i>Vigna coniosa</i> Baker ssp. <i>comosa</i>	+	49

Taxon	Status <sup>1</sup>	Source <sup>2</sup>
<i>Vigna cylindrica</i> (L.) Skeels	+	146
<i>Vigna multinervis</i> Hutch. & Dalziel	+	49
<i>Vigna nakashimae</i> (Ohwi) Ohwi & O. Ohashi	+	123
<i>Vigna oblongifolia</i> A. Rich.	+	38
<i>Vigna radiata</i> (L.) R. Wilczek var. <i>radiata</i>	+	5
<i>Vigna unguiculata</i> (L.) Walp. ssp. <i>unguiculata</i>	+	39
<i>Wiborgia incurvata</i> E. Mey.	+	61
<i>Wiborgia monoptera</i> E. Mey.	+	60
<i>Zapoteca tetragona</i> (Willd.) H.M. Hern.	-	150
<i>Zenkerella citrina</i> Taub.	-	150
<i>Zornia brasiliensis</i> Vogel	+	38
<i>Zygia inaequalis</i> (Willd.) Pittier	+	50
<i>Zygia juruana</i> (Harms) L. Rico	+	150

<sup>1</sup> Status: +, root nodules reported as present; -, root nodules reported as absent.

<sup>2</sup> Source:

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Leguminous Genera of Unknown Response to Rhizobia

Harold D.L. Corby and Joe.H. Kirkbride, Jr.

These lists of leguminous genera whose response to rhizobia is still unknown are presented to encourage their exploration. They are arranged geographically in the following six tables so that *Bean Bag* Readers may see at a glance the task awaiting them on their doorsteps.

Response has been reported for 493 legume genera comprising more than 17,450 species, leaving 195 genera, comprising some 549 species, still to be explored. One hundred and two genera, 52.6%, are monotypic; 86, 43.9%, have 2–10 species; and six, 3.1%, have 11–20 species. The vast majority is found in tropical areas, and only two genera, *Adenopodia* C. Presl and *Pomaria* Cav., occur in both the New and Old Worlds. *Pomaria* is also the largest genus with approximately 20 species. The genera, as understood here, are those accepted by the US Department of Agriculture in the Germplasm Resources Information Network [GRIN] (USDA 2001). The tribal classification is that of Polhill (1994a, 1994b), updated to reflect subsequent work (Kirkbride *et al.* 2000; USDA loc. cit.). The number of species per genus are those of Polhill and Raven (1981), updated to accord with those of Kirkbride *et al.* (loc. cit.).

Genera are listed by the mid-latitude of their distribution as given in Polhill and Raven (loc. cit.), updated to accord with Kirkbride *et al.* (loc. cit.). Genera occurring continuously across the equator are listed as *equatorial*, regardless of their extent on either side of it; those occurring on both sides of the equator, but not across it, are listed by the mid-latitudes of their northern and southern distributions.

Nodule Hunting

For those who may be unfamiliar with nodule hunting, it may be said that by far the best method of search is to raise seedlings in coarse sharp sand, with an admixture of soil from the rhizosphere of flourishing plants of the species concerned. Then, when seedlings are at least two months old, or at flowering if that comes sooner, their roots should be washed clean of soil to reveal any nodules present.

Those seeking nodules in the field must, when exploring root-systems too big to be dug out in their entirety, always trace the nodule-bearing roots back to the plant itself—only thus may the nodule be surely related to its supposed parent.

Effective rhizobial nodules (those fixing nitrogen—those being sought) may usually be recognized in being lateral outgrowths of the root with reddish-pink cores. However, these two criteria are not infallible, so specimens of any nodule found should be dried over silica gel for later formal identification; at the same time, specimens of the parent plant should be pressed and dried for the same purpose.

With seemingly non-nodulating species, it is suggested that successive batches of seedlings be raised, using a bacterial inoculum from a different source with each batch, until the tally of flourishing plants without nodules reaches at least 100. And then, and only then, to report that the species has been found to be non-nodulating! Fuller treatment of this subject may be found in Corby (1981, 1988) and Sprent (2001).

Table 1. African genera whose response to rhizobia is unknown and their distribution in Africa.

Genus	Tribe	No. of Species	Distribution
30° or more North			
<i>Argyrocytisus</i> (Maire) Frodin & Heywood ex Raynaud	Genisteae	1	Atlas Mountains
<i>Dorycnopsis</i> Boiss.	Loterae	1	E Mediterranean, N Morocco
<i>Erinacea</i> Adans.	Genisteae	1	NW Africa (and SW Europe)
<i>Spartidium</i> Pomel	Crotalarieae	1	North Africa
10–29° North			
<i>Clitoriopsis</i> R. Wilczek	Phaseoleae	1	Zaire, Sudan
<i>Distemonanthus</i> Benth.	Cassieae	1	West Tropical Africa
<i>Griffonia</i> Baill.	Cercideae	4	West Tropical Africa
<i>Melliniella</i> Harms	Desmodieae	1	West Tropical Africa
10–29° North contd.			
<i>Platycelyphium</i> Harms	Sophoreae	1	E and NE Africa
<i>Talbotiella</i> Baker f.	Detarieae	3	West Africa
<i>Verniiflux</i> J. B. Gillett	Loteae	1	N Ethiopia, Sudan, Eritrea, Yemen

3–9° North			
<i>Airyantha</i> Brummitt	Sophoreae	2	Guinea-Congo forests (and Borneo 1)
<i>Aphanocalyx</i> Oliv.	Detarieae	14	Guinea-Congo forests and Sierra Leone—Liberia—Ivory Coast
<i>Aubrevillea</i> Pellegr.	Mimoseae	2	Guinea-Congo forests
<i>Chidlowia</i> Hoyle	Caesalpinieae	1	Sierra Leone to Ghana
<i>Dicraeopetalum</i> Harms	Sophoreae	3	Kenya, Ethiopia (and Madagascar)
<i>Gilletiodendron</i> Vermeesen	Detarieae	5	Guinea-Congo forests
<i>Haplormosia</i> Harms	Sophoreae	1	Sierra Leone—Gabon
<i>Lebruniodendron</i> J. Léonard	Detarieae	1	Forests of Gulf of Guinea
<i>Leonardoxa</i> Aubrev.	Detarieae	1	Guinea-Congo forests
<i>Oddoniodendron</i> De Wild.	Detarieae	2	Gulf of Guinea forests
<i>Oxystigma</i> Harms	Detarieae	5	Guinea-Congo forests
<i>Pellegriniodendron</i> J. Léonard	Detarieae	1	Guinea-Congo forests
<i>Plagiosiphon</i> Harms	Detarieae	5	Guinea-Congo forests
<i>Polystemonanthus</i> Harms	Detarieae	1	Liberia and Ivory Coast
<i>Stemonocoleus</i> Harms	Detarieae	1	Guinea-Congo forests
<i>Tessmannia</i> Harms	Detarieae	11	Guinea-Congo and East Africa
Equatorial Africa			
<i>Adenopodia</i> C. Presl	Mimoseae	10	Africa 4 (and Central America and Mexico 3, Amazonia 3)
<i>Bikinia</i> Wieringa	Detarieae	10	W central Africa
<i>Bussea</i> Harms	Caesalpinieae	6	Tropical Africa (and Madagascar)
<i>Camoensia</i> Welw. ex Benth. & Hook. f.	Sophoreae	2	Forests of Gulf of Guinea
<i>Eurypetalum</i> Harms	Detarieae	3	Cameroon—Gabon
<i>Fillaeopsis</i> Harms	Mimoseae	1	Nigeria—Zaire—Angola
<i>Nesphostylis</i> Verdc.	Phaseoleae	3	Africa 1 (and India 1, Burma 1)
<i>Normandiodendron</i> J. Léonard	Detarieae	2	Zaire, Gabon, Cabinda
<i>Ostryocarpus</i> Hook. f.	Millettieae	6	Tropical Africa to SE Asia
<i>Pachyelasma</i> Harms	Caesalpinieae	1	Nigeria, Zaire, Gabon, Central African Republic
<i>Paracalyx</i> Ali	Phaseoleae	6	Africa to Asia
<i>Physostigma</i> Balf.	Phaseoleae	4	Tropical Africa
<i>Platysepalum</i> Welw. ex Baker	Millettieae	12	Tropical Africa
<i>Pseudoeriosema</i> Hauman	Phaseoleae	6	Tropical Africa
<i>Pseudoprosopis</i> Harms	Mimoseae	4	Tropical Africa
<i>Schefflerodendron</i> Harms	Millettieae	6	Tropical Africa
<i>Spathionema</i> Taub.	Phaseoleae	1	Tropical E Africa
<i>Stachyothyrsus</i> Harms	Caesalpinieae	3	Sierra Leone—Zaire—Gabon
<i>Vatovaea</i> Chiov.	Phaseoleae	1	Africa
3–9° South			
<i>Augouardia</i> Pellegr.	Detarieae	1	Gabon
<i>Englerodendron</i> Harms	Detarieae	1	Usambara Mountains, Tanzania
<i>Librevillea</i> Hoyle	Detarieae	1	Gabon
<i>Michelsonia</i> Hauman	Detarieae	1	Zaire forests
<i>Neochevalierodendron</i> J. Léonard	Detarieae	1	Gabon
<i>Pseudomacrolobium</i> Hauman	Detarieae	1	Forests of Congo basin
<i>Sindoropsis</i> J. Léonard	Detarieae	1	Gabon
<i>Stuhlmannia</i> Taub.	Caesalpinieae	1	Coastal forests of Tanzania



10–21° South			
<i>Adenolobus</i> (Harv. ex Benth. & Hook. f.) Torre & Hillc.	Cercideae	2	SW Africa
<i>Carrissoa</i> Baker f.	Phaseoleae	1	Angola
<i>Icuria</i> Wieringa	Detarieae	1	Coastal dunes of Mozambique
<i>Rhynchotropis</i> Harms	Indigofereae	2	South central Africa
22° or more South			
<i>Chrysoscias</i> E. Mey.	Phaseoleae	6	South Africa
<i>Polhillia</i> C.H. Stirt.	Genisteae	5	Cape Province, South Africa
<i>Pomaria</i> Cav.	Caesalpinieae	20	South Africa (and SW USA, N Mexico, South America)
<i>Stirtonanthus</i> B.-E. van Wyk & Schutte	Podalyriinae	3	Cape Province, South Africa
<i>Umtiza</i> Sim	Detarieae	1	South Africa

Ed. Note. Molecular data places *Umtiza* within subfamily Caesalpinioideae s.l but excludes it from Detarieae s.l.

Table 2. Madagascan genera whose response to rhizobia is unknown.

Genus	Tribe	No. of Species	Distribution
<i>Alantsilodendron</i> Villiers	Mimoseae	8	
<i>Baudouinia</i> Baill.	Cassieae	4	
<i>Brandzeia</i> Baill.	Detarieae	1	
<i>Brenierea</i> Humbert	Cercideae	1	
<i>Dicraeopetalum</i> Harms	Sophoreae	3	Ethiopia to N Kenya
<i>Disynstemon</i> R. Vig.	Millettieae	1	
<i>Eligmocarpus</i> Capuron	Cassieae	1	
<i>Gagnebina</i> Neck. ex DC.	Mimoseae	2	Comoros, Mauritius, Reunion
<i>Lemurodendron</i> Villiers & P. Guinet	Mimoseae	1	
<i>Lemuropisum</i> H. Perrier	Caesalpinieae	1	
<i>Mendoravia</i> Capuron	Cassieae	1	
<i>Neoapaloxylon</i> Rauschert	Detarieae	2	
<i>Neoharmsia</i> R. Vig.	Sophoreae	2	
<i>Ormocarpopsis</i> R. Vig.	Aeschynomeneae	5	
<i>Peltiera</i> Du Puy & Labat	Aeschynomeneae	2	
<i>Phylloxylon</i> Baill.	Indigofereae	5	
<i>Pongamiopsis</i> R. Vig.	Millettieae	2	
<i>Pyranthus</i> Du Puy & Labat	Millettieae	6	
<i>Sakoanala</i> R. Vig.	Sophoreae	2–3	
<i>Sylvichadsia</i> Du Puy & Labat	Millettieae	4	
<i>Tetrapterocarpon</i> Humbert	Caesalpinieae	1	
<i>Vaughania</i> S. Moore	Indigofereae	11	

Table 3. New World genera whose response to rhizobia is unknown and their distribution in the Americas and Caribbean islands.

Genus	Tribe	No. of Species	Distribution
30° or more North			
<i>Errazurizia</i> Phil.	Amorpheae	4	Arizona, Baja California, Sonora
<i>Kanaloa</i> Lorence & K. R. Wood	Mimoseae	1	Kaho’olawe, Hawaii
<i>Lackeya</i> Fortunato et al.	Phaseoleae	1	SE USA
<i>Peteria</i> A. Gray	Robinieae	4	Mexico, USA

30° or more North contd.			
<i>Pomaria</i> Cav.	Caesalpinieae	20	SW USA, N Mexico (and South America, South Africa)
<i>Rupertia</i> J. W. Grimes	Psoraleeae	3	SW Canada, W USA and N Baja California, Mexico
<i>Sphinctospermum</i> Rose	Robinieae	1	Mexico, USA
20–29° North			
<i>Behaimia</i> Griseb.	Millettieae	1	Cuba
<i>Calliandropsis</i> H. M. Hern. & P. Guinet	Mimoseae	1	Central Mexico
<i>Genistidium</i> I. M. Johnst.	Robinieae	1	Mexico and Texas, USA
<i>Herpyza</i> C. Wright	Phaseoleae	1	Cuba
<i>Hesperothamnus</i> Brandegees	Millettieae	5	Mexico
<i>Painteria</i> Britton & Rose	Ingeae	3	Mexican plateau
<i>Pictetia</i> DC.	Aeschynomeneae	5	Cuba
<i>Pomaria</i> Cav.	Caesalpinieae	20	SW USA, N Mexico (and South America, South Africa)
<i>Prosopidastrum</i> Burkart	Mimoseae	1	Mexico (and Patagonia 1)
10–19° North			
<i>Adenopodia</i> C. Presl	Mimoseae	10	Mexico and Central America 3, Amazonia 3 (and Africa 4)
<i>Apoplanesia</i> C. Presl	Amorpheae	1	Mexico—Venezuela
<i>Arcoa</i> Urb.	Caesalpinieae	1	Santo Domingo
<i>Guinetia</i> L. Rico & M. Sousa	Ingeae	1	Oaxaca, Mexico
<i>Hybosema</i> Harms	Robinieae	2	S Mexico, N Central America
<i>Lennea</i> Klotzsch	Robinieae	5	Central America, Mexico
<i>Myrospermum</i> Jacq.	Sophoreae	2	S Texas, USA to northern South America
<i>Pictetia</i> DC.	Aeschynomeneae	6	West Indies
<i>Pomaria</i> Cav.	Caesalpinieae	20	SW USA, N Mexico (and South America, South Africa)
<i>Prioria</i> Griseb.	Detarieae	1	Panama, Costa Rica, Jamaica, Colombia, Central America
<i>Rhodopis</i> Urb.	Phaseoleae	1	West Indies
<i>Sphinga</i> Barneby & J. W. Grimes	Ingeae	3	S Mexico, N. Guatemala, Cuba, N coastal Colombia and Venezuela
<i>Uribea</i> Dugand & Romero	Sophoreae	1	Costa Rico, Colombia
3–9° North			
<i>Brachycylis</i> (Harms) R. S. Cowan	Detarieae	1	Colombia
<i>Candolleodendron</i> R. S. Cowan	Swartzieae	1	French Guiana, mouth of Amazon
<i>Fissicalyx</i> Benth.	Dalbergieae	1	Venezuela, Guyana, Panama
<i>Margaritolobium</i> Harms	Millettieae	1	Margarita Island, Venezuela
<i>Orphanodendron</i> Barneby & J. W. Grimes	Caesalpinieae	1	Antioquia, Colombia
<i>Spirotropis</i> Tul.	Sophoreae	1	NE South America
Equatorial America			
<i>Adenopodia</i> C. Presl	Mimoseae	10	Mexico and Central America 3, Amazonia 3 (and Africa 4)
<i>Apurimacia</i> Harms	Millettieae	4	Tropical and subtropical South America
<i>Browneopsis</i> Huber	Detarieae	6	Panama, Colombia, Ecuador, Peru
<i>Collaea</i> DC.	Phaseoleae	3	Tropical and subtropical South America
<i>Cymbosenta</i> Benth.	Phaseoleae	1	Mexico—Amazonia
<i>Ecuadendron</i> D. A. Neill	Detarieae	1	W Ecuador
<i>Jacqueshuberia</i> Ducke	Caesalpinieae	3	Brazil, Colombia, Venezuela, Peru



Equatorial America contd.			
<i>Mnelleria</i> L. f.	Millettieae	2	Tropical America
<i>Palone</i> Aubl.	Detarieae	4	Tropical America
<i>Paloveopsis</i> R. S. Cowan	Detarieae	1	NE South America
<i>Soemmeringia</i> Mart.	Aeschynomeneae	1	Brazil, Venezuela, Bolivia
3–9° South			
<i>Androcalymma</i> Dwyer	Cassieae	1	Amazonia
<i>Uleanthus</i> Harms	Sophoreae	1	Amazon basin
<i>Weberbauerella</i> Ulbr.	Aeschynomeneae	2	Peru
10–29° South			
<i>Blanchetiodendron</i> Barneby & J. W. Grimes	Ingeae	1	NE Brazil
<i>Cascaronia</i> Griseb.	Dalbergieae	1	Bolivia, Argentina
<i>Fiebrigiella</i> Harms	Aeschynomeneae	1	Bolivia, Peru
<i>Lencochloron</i> Barneby & J. W. Grimes	Ingeae	4	E Brazil
<i>Mysanthus</i> G. P. Lewis & A. Delgado	Phaseoleae	1	Bahia, Brazil
<i>Oryxis</i> A. Delgado & G. P. Lewis	Phaseoleae	1	Minas Gerais, Brazil
<i>Panurea</i> Spruce ex Benth. & Hook. f.	Sophoreae	1	Colombia, Brazil
<i>Petaladenium</i> Ducke	Sophoreae	1	Brazil
<i>Piptadeniopsis</i> Burkart	Mimoseae	1	Paraguay
<i>Pomaria</i> Cav. <i>Pomaria</i> Cav. contd.	Caesalpinieae	20	South America (and SW USA, N Mexico, South Africa)
<i>Sellocharis</i> Taub.	Genisteae	1	SE Brazil
<i>(Thylacanthus</i> Tul.	Detarieae	1	Brazil) see Ed. Note.
30° or more South			
<i>Anarthrophyllum</i> Benth.	Genisteae	15	Chile, Argentina
<i>Pomaria</i> Cav.	Caesalpinieae	20	South America (and SW USA, N Mexico, South Africa)
<i>Prosopidastrum</i> Burkart	Mimoseae	1	Patagonia (and Mexico 1)
<i>Ramorinoa</i> Speg.	Dalbergieae	1	Argentina
<i>Stenodrepanum</i> Harms	Caesalpinieae	1	Argentina, Brazil
<i>Zuccagnia</i> Cav.	Caesalpinieae	1	Argentina, Chile

Ed .Note. *Thylacanthus* Tul. , thought to be a monotypic genus from Brazil based on a single collection is *Julbernardia paniculata* (Benth.) Troupin from Mozambique (Breteler in comm. G.P.Lewis, 1995).

Table 4. Asian and Indo-Pacific island genera whose response to rhizobia is unknown and their distribution in the Asia and the Indo-Pacific islands.

Genus	Tribe	No. of Species	Distribution
40° or more North			
<i>Ammodendron</i> Fisch. ex DC.	Sophoreae	6	Central Asia
<i>Eversmannia</i> Bunge	Hedysareae	1	Caspian Sea to Tien Shan
<i>Paracalyx</i> Ali	Phaseoleae	6	Asia (and Africa)
30–39° North			
<i>Craspedolobium</i> Harms	Millettieae	1	W China
<i>Diphyllarum</i> Gagnep.	Phaseoleae	1	Indochina, Indonesia, Philippines
<i>Oreophysa</i> (Bunge ex Boiss.) Bornm.	Galegeae	1	Mountains of N Iran
<i>Salweenia</i> Baker f.	Sophoreae	1	Tibet
<i>Sarcodum</i> Lour.	Millettieae	2	SE Asia, Japan (Solomon Is. 1, Phillipines,1)

30–39° North contd.			
<i>Sinodolichos</i> Verdc.	Phaseoleae	2	China and Burma
<i>Spongiocarpella</i> Yakovlev & N. Ulziykh.	Galegeae	9	Central China, foothills of the Himalayas, Mongolia
<i>Stracheya</i> Benth.	Hedysareae	1	N India, Nepal, Bhutan, SW China
3–29° North			
<i>Afgekia</i> Craib	Millettieae	3	S China, Burma, Thailand
<i>Airyantha</i> Brummitt	Sophoreae	1	Borneo (and Africa)
<i>Antheroporum</i> Gagnep.	Millettieae	2	Thailand, Indochina, S China
<i>Burkilliodendron</i> Sastry	Millettieae	1	Perak, Malaysia
<i>Cochlianthus</i> Benth.	Phaseoleae	2	Himalayas, SW China
<i>Cruddasia</i> Prain	Phaseoleae	1	Burma, Thailand, S China
<i>Desmodiastrum</i> (Prain) A. Pramanik & Thoth.	Desmodieae	2	S India, Indochina, E Java
<i>Eleiotis</i> DC.	Desmodieae	2	India
<i>Endertia</i> Steenis & de Wit	Detarieae	1	Borneo
<i>Endosamara</i> R. Geesink	Millettieae	1–2	S India to Philippines
<i>Luzonia</i> Elmer	Phaseoleae	1	Philippines, Indonesia
<i>Nesphostylis</i> Verdc.	Phaseoleae	3	India 1, Burma 1 (and Africa 1)
<i>Nogra</i> Merr.	Phaseoleae	3	India, Thailand, China
<i>Ostryocarpus</i> Hook. f.	Millettieae	6	Tropical Africa to SE Asia
<i>Pseudosindora</i> Symington	Detarieae	1	Borneo, Sarawak
<i>Spongiocarpella</i> Yakovlev & N. Ulziykh.	Galegeae	9	Central China, foothills of the Himalayas, Mongolia
<i>Storckiella</i> Seem.	Cassieae	3	New Caledonia and Fiji
<i>Stracheya</i> Benth.	Hedysareae	1	N India, Nepal, Bhutan, SW China
Equatorial Asia			
<i>Fordia</i> Hemsl.	Millettieae	10	Continental SE Asia, Sumatra, Borneo
<i>Kingiodendron</i> Harms	Detarieae	6	India, East Indies
<i>Kunstleria</i> Prain	Millettieae	7	Malaya, Borneo, Sumatra, Philippines, New Guinea, S India
<i>Leucostegane</i> Prain	Detarieae	2	Malaya, Sarawak
<i>Macropsychanthus</i> Harms ex K. Schum. & Lauterb.	Phaseoleae	4	Philippines, New Guinea, Micronesia
<i>Mecopus</i> Benn.	Desmodieae	1	India to S China and Malayan Islands
<i>Neocollettia</i> Hemsl.	Desmodieae	1	Burma, Java
<i>Serianthes</i> Benth.	Ingeae	10	Malay peninsula and archipelago
<i>Sympetalandra</i> Stapf	Caesalpinieae	5	East Indies
<i>Trifidacanthus</i> Merr.	Desmodieae	2	Vietnam, Hainan, Philippines, Lesser Sunda Islands
3° or more South			
<i>Arthroclianthus</i> Baill.	Desmodieae	10	New Caledonia
<i>Desmodiastrum</i> (Prain) A. Pramanik & Thoth.	Desmodieae	2	S India, E Java
<i>Kalappia</i> Kosterm.	Cassieae	1	Celebes
<i>Nephrodesmus</i> Schindl.	Desmodieae	6	New Caledonia
<i>Sarcodum</i> Lour.	Millettieae	2	Solomon Islands 1, Philippines 1 (and SE Asia and Japan)
<i>Storckiella</i> Seem.	Cassieae	3	New Caledonia, Fiji



Table 5. Australian genera whose response to rhizobia is unknown and their distribution in Australia.

Genus	Tribe	No. of Species	Distribution
<i>Aenictophyton</i> A. T. Lee	Bossiaeeae	1	Northern Terr. and Western Australia
<i>Austrodolichos</i> Verdc.	Phaseoleae	1	Australia
<i>Austroteenisia</i> R. Geesink	Millettieae	4	E coastal Australia
<i>Jansonia</i> Kippist	Mirbelieae	1	SW Western Australia
<i>Labichea</i> Gaudich. ex DC.	Cassieae	9	Australia
<i>Pararchidendron</i> I. C. Nielsen	Ingeae	2	Australia (and Asia)
<i>Phylacium</i> Benn.	Desmodieae	2	N Queensland (and Asia)
<i>Plagiocarpus</i> Benth.	Bossiaeeae	1	N Australia
<i>Ptychosema</i> Benth. ex Lindl.	Bossiaeeae	2	Central and Western Australia
<i>Streblorrhiza</i> Endl.	Carmichaelieae	1	Philip Island
<i>Urodon</i> Turcz.	Mirbelieae	1–3	SW Australia

Table 6. European and Mediterranean genera whose response to rhizobia is unknown and their distribution in Europe and Mediterranean basin.

Genus	Tribe	No. of Species	Distribution
<i>Cytisopsis</i> Jaub. & Spach	Loteae	2	E Mediterranean and North Africa
<i>Dorycnopsis</i> Boiss.	Loteae	1	E Mediterranean, N Morocco
<i>Echinopartum</i> (Spach) Fourr.	Genisteae	3	SW Europe
<i>Erinacea</i> Adans.	Genisteae	1	SW Europe and NW Africa
<i>Gonocytisus</i> Spach	Genisteae	3	E Mediterranean
<i>Hammatolobium</i> Fenzl	Loteae	2	Mediterranean basin
<i>Podocytisus</i> Boiss. & Heldr.	Genisteae	1	Balkan peninsula, W Turkey
<i>Sartoria</i> Boiss. & Heldr.	Hedysareae	1	S Turkey

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## GLEANINGS

Ed. Note: Names in all capital letters are *Bean Bag* Readers. Their full names and addresses are listed in the *Bean Bag* Current Readers' Directory soon to be available on the www server of the Royal Botanic Gardens, Kew, United Kingdom. See "From the Editor" for the URL.

ALBUQUERQUE is studying medicinal legumes, *Zornia reticulata* Smith, *Mimosa pudica* L. and *Copaifera* spp. and would like any information about these (and other) tropical legumes used in popular medicine. Offers information about tropical legumes of Amazonia – José Maria de Albuquerque, Caixa Postal 716, 66.017-970-Belém-Pará, Brasil.

ARAMBARRI A.M., Stenglein, S.A., Colares, M.N., Novoa, M.C. and Vizcaino, C.E. are working on "Leaf epidermal characteristics in Old and New World species of *Lotus* (Fabaceae: Loteae)". Their purpose is to discover diagnostic characters for future studies.

BEYRA-MATOS continues working on tribe Phaseoleae and defended her PhD thesis on *Pictetia* (PhD thesis) in November 2000 at Havana University, which was approved by the tribunal of scientific grade at Havana University.

CACCAVARI is undertaking a pollen study of American genera of the Piptadenia Group: *Adenopodia*, *Stryphnodendron*, *Mimosa*, *Piptadeniopsis*, *Microlobius*, *Piptadenia*, *Pseudopiptadenia* and *Parapiptadenia*. Flora palinologica del Nordeste Argentino. Needs pollen material of species of the different American taxa of the Piptadenia Group and offers pollen slides of Mimosoideae of Argentina.

FORERO has been up-dating the Mimosoideae in COL (National Herbarium of Colombia) based on monographs by Barneby & Grimes and by Pennington. Studies on the Mimosoideae of Colombia are underway.

HIRSCH is working on genetics of sweet clover (*Melilotus albus* Medikus) and needs Rhizobium inocula for *Gleditsia*. She offers *M. albus* mutants.

KIAM is working on nodulation of legumes in Cameroonian forest zone. Needs lab material for the study of root nodule or any information on nodulation of legumes and offers seed of some Cameroonian legumes such as *Pterocarpus* and *Erythrophleum*.

PAVLOVA needs legume research material of *Bauhinia* L.: *B. aculeata* L., *B. acuminata* L., *B. cumanensis* H.B.K., *B. diphylla* Ham., *B. galpinii* Br., *B. hookeri* Muell., *B. jumanensis* Fr., *B. monandra* Kurz., *B. purpurea* L., *B. racemosa* Lam., *B. rufescens* Lam. and especially material of *B. tomentosa* L., *B. variegata* L. For each species 20–30 seeds and/or a few coloured photographs of the plants in flower are needed.

PIERGIOVANNI with Nenno is maintaining a germplasm database on Italian landraces of *Phaseolus vulgaris* L which is available on <http://www.ba.cnr.it/~germap14/ilcb/>. They offer and need seed material of the same.

PISTRICK needs land races and old varieties of cultivated legumes and its wild relatives. Offers legumes from the Gatersleben genebank (cp. Index seminum). <http://fax-serve.ipk-gatersleben.de>

PLANCHUELO is Director of a new Economic Botany project that combines studies in seed anatomy and morphology of crop legumes with taxonomic studies of wild species. Needs Herbarium specimens of *Lupinus* and *Crotalaria* and offers Herbarium specimens of legumes from Central Argentina.

ROBILLARD offers legume publications The list of titles is available from [Library-res@em.agr.ca](mailto:Library-res@em.agr.ca).

SARAVANAKUMAR is working on comparative studies of proteins, chromosome and DNA of some populations of *Vigna* spp. Needs material of grain legumes and its wild relatives and information concerning genetics and conservation of grain legumes and its wild relatives. Offering wild relatives of grain legumes literature/seeds such as *Vigna* and *Cajanus*.

TUCKER is working on comparative floral ontogeny of Swartzieae and needs young floral inflorescences and buds of Swartzia, other taxa in Swartzieae. Offers reprints of publications on floral development in various legumes.

VANDEBORGHT is maintaining a Phaseoleae – Phaseolinae collections chiefly centred on wild *Phaseolus* and *Vigna* species. Offers and needs seed material of the same. List of the taxa included in the collection is available on <http://www.bn.fgov.be/research/collections/living/...../phaseolus/index.html>.

VAN DER MAESEN is working on Leguminosae of Benin for the project Flora of Benin (1997-2002). Needs *Flemingia*, *Cajaniinae* and *Millettia* from Africa. Offers duplicates from Benin.



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Ed. Note: Authors names in all capital letters are *Bean Bag* Readers. Their full names and addresses are listed in the *Bean Bag* Current Readers' Directory soon to be available on the www server of the Royal Botanic Gardens, Kew, United Kingdom. See "From the Editor" for the URL. All correspondence should be addressed directly to them.

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